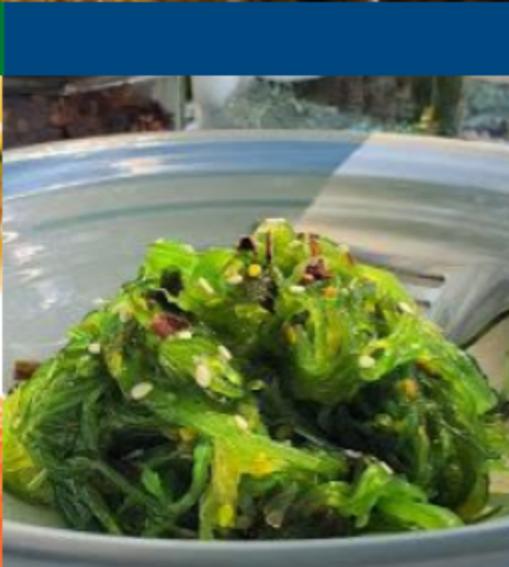




NOAA
FISHERIES

State by State Summary of Seaweed Aquaculture Leasing/Permitting Requirements (2021)



State by State Summary of Seaweed Aquaculture Leasing/Permitting Requirements (2021)

Prepared by Benjamin Hurley with funding from the [Ernest F. Hollings Undergraduate Scholarship Program](#). This information is current as of August 2021.

Aquaculture is an emerging industry in the United States with varying permitting structures across the states. In 2018, a report assessed shellfish aquaculture permitting systems and documented permitting and leasing requirements for shellfish operations in the waters of 22 states¹. The permitting inventory that resulted from this project was a valuable reference for those seeking to enter the industry and a useful tool for sharing knowledge and practices across state programs. However, aquaculture permitting is subject to frequent changes, and much of this document quickly became outdated. Furthermore, Hawaii and the U.S. territories were not included in the initial report, and no comparable compendium existed for finfish or seaweed permitting despite rising interest in these sectors. Through collaboration and communication with state aquaculture representatives, the spreadsheet associated with O'Connell (2018) was updated and formatted to be compatible with screen readers.

If you would like to request this information in spreadsheet format or notice information that is inaccurate or outdated, please email nmfs.aquaculture.info@noaa.gov.

Guidance for Use

This report provides an overview of permitting and leasing programs for aquaculture in U.S. state waters. However, it is strongly recommended that you speak with a local aquaculture representative prior to beginning your planning process. Aquaculture permitting is both complex and subject to frequent change. As such, this report is not comprehensive, and your farm may require permits or be subject to requirements not listed here. Information may also be outdated or incomplete. While this document may serve as a convenient reference, it is not a substitute for a personal discussion of your project with a state aquaculture representative. In addition to state representatives, NOAA Regional Aquaculture Coordinator Contact Info can be found [here](#). Information on the National Sea Grant College Program and links to all program locations can be found [here](#). Note that marine finfish and seaweed operations in state waters are newer industries and lack formal permitting programs in many states. Projects are frequently evaluated on a case-by-case basis, and listed regulations may be variable. Contact your state representative for more information.

¹ Evaluation of U.S. Shellfish Aquaculture Permitting Systems: Recommendations to Improve Permitting Efficiencies and Industry Development. A Report to NOAA Fisheries. Final Report Submission – June 2018. Prepared by Tom O'Connell, Earth Resource Technology, Inc.

Table of Contents

[Alabama](#)

[Alaska](#)

[California](#)

[Connecticut](#)

[Delaware](#)

[Florida](#)

[Georgia](#)

[Guam](#)

[Hawaii](#)

[Louisiana](#)

[Maine](#)

[Maryland](#)

[Massachusetts](#)

[Mississippi](#)

[New Hampshire](#)

[New Jersey](#)

[New York](#)

[North Carolina](#)

[Northern Mariana Islands \(CNMI\)](#)

[Oregon](#)

[Rhode Island](#)

[South Carolina](#)

[Texas](#)

[Virginia](#)

[Washington](#)

Alabama

Summary of the Status of Algae Culture

- While finfish and seaweed culture have not yet occurred in Alabama, more people are expressing interest in aquaculture that falls outside of their oyster-only program. Right now, non-oyster aquaculture could be permitted in Alabama via the Corps permitting process. The Marine Resources Division would have comment privilege on these permits, but they would not have the ability to stop a project.
- Alabama is working on developing state regulations to address non-oyster aquaculture in the future, including involvement from other state agencies (such as State Lands and ADEM). The program will likely look similar to the current oyster regulations and may look to states with developed programs (such as Florida) to borrow regulatory structures. The future program will aim to permit as many species as possible, but it will focus on species native to the Gulf of Mexico, including the genetic profile (e.g. would not be able to import red drum from the Atlantic coast).

Tribal

No information

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information

Local municipality website for algae aquaculture leasing/permitting:

No information

Local municipality application for algae aquaculture leasing/permitting:

No information

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

Commenting privilege for Department of Conservation and Natural Resources, Marine Resources Division

State agency contact(s) for algae aquaculture leasing/permitting:

Kevin Anson (DNR), kevin.anson@dcnr.alabama.gov, 251-968-9694

State agency website(s) for aquaculture leasing/permitting:

[Alabama Oyster Aquaculture](#)

State algae aquaculture leasing/permitting law(s):

- Seafood Aquaculture: [Chapter 220-3 Marine Resources Division](#)
- Note that while 220-3-.85(3) claims that aquaculture sites may only be established on or within the inside waters of Alabama (roughly inside of Alabama's barrier islands), ultimately permitting is just done by Corps and not by the State right now until Alabama sets up a regulatory program. Corps may theoretically permit aquaculture in Alabama culture waters.

State algae aquaculture leasing/permitting regulation(s):

Regulations have not been developed.

State application for algae leasing/permitting:

Permitted through Corps; see below.

U.S. Army Corps of Engineers

Corps District(s):

Mobile

Corps contact(s) for algae aquaculture permitting:

Dylan Hendrix, dylan.c.hendrix@usace.army.mil, 251-694-3772

Corps website for algae aquaculture permitting:

[Mobile Regulatory Division](#)

Corps permit for algae aquaculture:

NWP 55 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

- [Standard PCN or IP forms](#)
- May be able to use Alabama JPA; check with agencies. [JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

May be able to use Alabama JPA; check with agencies. [JPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

PCN at minimum.

Are there interagency meetings (state/federal)?

No information

Interagency Meeting Frequency:

No information

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- Some siting tools meant for shellfish that might nonetheless be useful
- [Aquaculture siting tool](#) and riparian parcel identifier, SAV maps, NOAA navigational charts, bottom substrate classifications
- [Shellfish Aquaculture Siting Tool](#)

Is a pre-application meeting required, encouraged, not specified?

Highly encouraged

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Algae lease/permit application fee?

No information

Is applicant fee returned if denied?

No information

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information

Summary of advertisement requirement of lease application by agency and/or applicant?

No information

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

No information

Is a business plan required with application?

No information

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

No information

Are renewals available?

No information

Any renewal fee?

No information

Is there an active use requirement? Any criteria to assess?

No information

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can an algae aquaculture lease be transferred?

No information

Is there a bid process for leases?

No information

Any acreage limits?

No information

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

No information

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

No information

Lease markering responsibility

No information

Biological assessment fee

No information

Property tax

No information

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

No information

Any alternative names of a 'lease'?

No information

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Standard Corps requirements

Protected Resources and Critical Habitat Designations

Standard Corps requirements

Essential Fish Habitat (EFH)

Standard Corps requirements

Navigation

Standard Corps requirements

Historic resources

Standard Corps requirements

Migratory Fish

Standard Corps requirements

Shellfish density threshold

No information

Submerged aquatic vegetation (SAV)

Standard Corps requirements

Other natural resource protection measures?

Standard Corps requirements

Riparian Setback

No information

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information

Any riparian owner notice requirement for lease applications?

No information

Is applicant required to provide list of riparian owners to permitting agency?

No information

Is any consent of riparian owner required? If so, under what condition?

No information

Coastal Zone Management (CZM) Consistency Determination

[Individual consistency determination required.](#)

Section 401 Water Quality Certification (WQC)

[State concurrence with NWP 55](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Alabama NPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

No information

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

0

Number of complete algae applications currently in review?

0

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

0

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture

No information

Alaska

Summary of the Status of Algae Culture

- Seaweed/kelp farms use the same system as shellfish in AK.

- Applications accepted 1/1 to 4/30 if on state lands/bottoms; if on private land, F&G operations permit can be applied for at any time.

Tribal

Applicants encouraged to reach out to local tribal entities to avoid any conflicts with user groups.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Yes. First class cities and boroughs (e.g. Ketchikan Gateway Borough, City of Craig, City and Borough of Juneau, City and Borough of Sitka, City of Thome Bay, City and Borough of Yakutat, and Kenai Peninsula Borough) typically have planning sections that issue permits for aquatic farm operations. Inquiry in with Kodiak. See worksheet in the joint-agency application, City/Borough Contacts, for contacts to obtain this information (note that joint app is currently being updated).

Local municipality website for algae aquaculture leasing/permitting:

See worksheet in the joint-agency application, City/Borough Contacts, for contacts to obtain this information. Note that joint application is currently being updated.

Local municipality application for algae aquaculture leasing/permitting:

See worksheet in the joint-agency application, City/Borough Contacts, for contacts to obtain this information. Note that joint application is currently being updated.

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

- Department of Natural Resources (DNR), Mining Land and Water Division issues aquatic farm lease
- Department of Fish and Game (ADF&G), Division of Commercial Fisheries, Aquaculture Section issues aquatic farm and hatchery operation permits
- Department of Env. Conservation (DEC) does sanitation survey after all else
- [Breakdown of each agency's role in the process](#)

State agency contact(s) for algae aquaculture leasing/permitting:

- DNR - Program Coordinator Karen Cougan, karen.cougan@alaska.gov
- DF&G - Permit Coordinator Michelle Morris, michelle.morris2@alaska.gov, 907-465-4235
- AQ Section Chief Flip Pryor, garold.pryor@alaska.gov, 907-465-4235

State agency website(s) for aquaculture leasing/permitting:

- [ADNR Aquatic Farm Leasing](#)
- [ADF&G Aquatic Farming Permits](#)

State algae aquaculture leasing/permitting law(s):

[Applicable Aquatic Farming Statutes and Regulations](#)

State algae aquaculture leasing/permitting regulation(s):

- [Applicable Aquatic Farming Statutes and Regulations](#)
- ADNR: 11 AAC 63

State application for algae leasing/permitting:

- [Full list of forms from AF&G](#)
- [Joint agency state application](#)

U.S. Army Corps of Engineers

Corps District(s):

Alaska

Corps contact(s) for algae aquaculture permitting:

District Office: regpagemaster@usace.army.mil (general mailbox), 800-478-2712

Mail: District Office, USACE, P.O. Box 6898, JBER, 99506-0898

Corps website for algae aquaculture permitting:

[Alaska Regulatory Permits](#)

Corps permit for algae aquaculture:

NWP 55 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

PCN. Can use form [ENG 6082](#)

Is there a State/Federal Joint Permit Application (JPA)?

Not with Corps but with involved state agencies.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes

Are there interagency meetings (state/federal)

No. USACE is informed of issued ADF&G operation permits.

Interagency Meeting Frequency:

DNR, ADF&G, and DEC keep in close communication through review process via telephone meetings and emails.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

- [Information on the Application Process, Guidelines, Authorizations, and Contacts](#)
- Also see NOAA Permitting Portal—Contact Alaska Regional Aquaculture Coordinator

Process flowchart available?

- See pg. 4 of guide linked above
- Also see NOAA Permitting Portal—Contact Alaska Regional Aquaculture Coordinator

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Aquatic Farming Operations GIS Map](#)
- USGS Topographic quadrangle maps can be obtained from [State of Alaska DNR Mapper application](#)
- The [NOAA Alaska ShoreZone mapping system](#) has biophysical data and aerial videos of the shoreline including identifying sensitive areas
- [AOOS Mariculture Map](#) that can help with siting and will help produce maps required for joint agency application

Is a pre-application meeting required, encouraged, not specified?

Recommended, but not required.

Application Fees

Any pre-determination meeting fee for applicants?

No

Algae lease/permit application fee?

Yes. See [table of all fees](#).

- <1 acre, <24 hours of time: \$600
- 1-3 acres, <60 hours of time: \$1200
- >3 acres, <100 hours of time: \$2000

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Not required but may be requested (contact ADNR). Public outreach may be recommended in locations with possible conflicting user groups.

Summary of advertisement requirement of lease application by agency and/or applicant?

30-day public notice and review period with notices published on ADNR web pages.

Who pays for advertisement?

Agency

Business/Operations Plan

Is a management or operations plan required with application?

Yes, an operation and development plan is required in joint application.

Is a business plan required with application?

Template provided in application to assist with submitting operation and development plan, but financial information not required.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

10 months to over a year for complex operations on state lands. ADF&G operation permit decision within 30 days after DNR lease issuance.

Lease Term and Conditions

Maximum term limit for lease?

10 years

Are renewals available?

Yes

Any renewal fee?

[\\$100 renewal fee](#)

Is there an active use requirement? Any criteria to assess?

Commercial use of the site beginning no later than the fifth year of the lease operations and continuing for the rest of the lease term. Commercial use of the site means annual sales of aquatic farm products of at least \$3,000 per acre or fraction of an acre or \$15,000 per farm, whichever is less.

Is there a production report requirement?

Yes. Information, instructions and samples of completed forms [under 'Reporting' on F&G website](#).

Frequency for providing production report?

Annually

Can an algae aquaculture lease be transferred?

Yes (\$100)

Is there a bid process for leases?

N/A - allowed by law, but currently DNR does not currently accept or process bids for aquatic farm leases.

Any acreage limits?

No, but may be limited by location and existing users.

Limits per site

See limitation details under 11 AAC 63.050. Three miles between parcels.

Limits per person

No

Limits on number of lease sites a person can hold

No

Rental and Use Fees

Annual rental fee?

- DNR - Aquatic farm site: \$450 for the first acre or portion thereof plus \$125 for each additional acre. [Full fee schedule](#).
- Additional annual fees for housing facilities apply (see above link).

Any algae aquaculture harvest surcharge? If so, what is it?

If the commissioner authorizes the removal and sale of the excess amount of wild stock from an aquatic farm site under AS 16.40.100(f), pay reasonable compensation to the state for the harvest and sale of the excess wild stock; reasonable compensation is a proportion of whichever is the greater of the average ex vessel price paid in the most recent commercial fishery or the amount paid at the first point of sale; the proportion for live geoducks is 21 percent; processed geoducks is 8 percent; shellfish, other than geoducks, is set on a case-by-case basis.

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

- DNR - A minimum \$2,500 bond required (50% of the required bond if an association of 3+ farmers made)
- Also need commercial liability insurance.
- \$150 annual growing area reapproval
- Fee for initial water classification (\$500 first time)

Land surveyor/hydrographic survey

Not required.

Lease markering responsibility

Applicant

Biological assessment fee

ADF&G: Shellfish abundance survey fee for on-bottom clam culture to determine initial abundance of the species intended for culture. Fees dependent on size of site and may be subject to reduction.

Intertidal survey - no more than \$2,000 per aquatic farm site, per day

subtidal survey - no more than \$5,000 per aquatic farm site, per day.

Property tax

N/A

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources**Other websites of interest:**

- [Alaska Fisheries Development Foundation](#)
- [Commerce Mariculture Loan Program](#)
- [NOAA Permit Portal](#)
- [AOOS Harmful Algal Bloom Network](#)
- [AOOS Mariculture Map](#)
- [Seaweed Hub](#) state-specific resources

Definitions**State definition of aquaculture:**

"Mariculture" means the farming of shellfish and aquatic plants as defined in AS 16.40.199. (§16.10.945). Aquatic farm in AS 16.40.199 means a facility that grows or cultivates aquatic farm products in captivity or under positive control. Positive control under this definition section means, for mobile species, enclosed within a natural or artificial escape-proof barrier; for species with limited or no mobility, such as a bivalve or aquatic plant, " positive control" also includes managed cultivation in unenclosed water.

Any alternative names of a 'lease'?

Aquatic farm lease.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Standard stipulations address environment and user conflicts and special stipulations will be added to the lease on a case by case basis. See limitation details under 11 AAC 63.050, 5 AAC 41.240

Site must be suitable for the farm or organism being cultured--the substrate composition is suitable for the target species or can be enhanced and still maintain a healthy environment for other marine organisms. The water depth is sufficient to prevent gear from grounding and impacting the benthos under floating structures.

Protected Resources and Critical Habitat Designations

Standard under NWP. ADF&G Habitat Division must also approve and issue Special Habitat Permit for farms in critical habitat areas (e.g. Kachemak Bay). See permit application for more info. See [special use lands designation](#).

Essential Fish Habitat (EFH)

Standard; herring spawning areas should be avoided if possible (contact ADF&G for info on how to avoid significant impacts).

Navigation

Standard

Historic resources

Standard

Migratory Fish

May not be located within 300 ft of the mouth of an anadromous fish stream.

Shellfish density threshold

The proposed farm site may not include more than an insignificant population of a wild stock, on the site, of a shellfish species intended to be cultured.

An insignificant population of geoducks is no more than 12,000 pounds of geoducks on a six-acre aquatic farm site or an average of no more than 2,000 pounds per acre of an aquatic farm site.

An insignificant population of shellfish, other than geoducks, is the amount that, as determined by the commissioner on a case-by-case basis, will not attract and support a commercial fishery for that species of shellfish and the harvest and sale of the shellfish will not result in significant alteration in traditional fisheries or other uses of fish and wildlife resources if the population is included within the aquatic farm.

Submerged aquatic vegetation (SAV)

[NWP 55 conditions apply](#). An operation permit will be issued from the Commissioner if the health and abundance of eelgrass and kelp beds can be maintained.

Other natural resource protection measures?

An operation permit will be issued from the Commissioner if the proposed aquatic farm or hatchery is compatible with fish and wildlife resources in the area, and (A) any predator and pest control methods have been designed to minimize impacts to non-targeted fish and wildlife resources in the area; (B) does not adversely impact seabird colonies, sea lion haulouts and rookeries, seal haulouts and pupping areas, and walrus haulouts; (C) does not adversely impact endangered and threatened species recovery and habitat protection efforts; [5 AAC 51.240](#).

Riparian setback

Evaluated on an individual permit application basis.

Social capacity

Evaluated on an individual permit application basis.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

The State of Alaska asserts ownership to the mean high tide for tidelands and to the ordinary high water line for all navigable fresh water bodies. Under Generally Allowed Uses, 11 AAC 96.020 the upland owner has rights to access and use the adjacent water body but they can not block public access to and along.

Any riparian owner notice requirement for lease applications?

Yes, DNR will notify upland owners within 0.5 mile.

Is applicant required to provide list of riparian owners to permitting agency?

Yes, must provide names and addresses of upland owners within 0.5 mile.

Is any consent of riparian owner required? If so, under what condition?

Consent may be needed if the applicant needs access through the private property and no other access to the site is available or the site would hinder the upland owners access to their private property.

Coastal Zone Management (CZM) Consistency Determination

No program in Alaska (withdrew from National CZM Program on July 1, 2011).

Section 401 Water Quality Certification (WQC)

N/A

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[APDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- Growing Area Classification (DEC) - \$500 initially, \$150/day for recertification
- Harvester Permit (DEC) - \$162
- Export Certifications - \$25
- F&G stock transport permit for between facilities (farm/hatchery to farm/hatchery), and stock acquisition permit for wildstock collection to farm/hatchery (juvenile or adult) other than natural set
- [Importation requirements and certifications](#)

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

7/10 that involve kelp/plants in some capacity

Number of complete algae applications currently in review?

5

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

20 that are just plants/kelp, but 40 sites have kelp or algae farmed on them, but they also may include shellfish.

Total acreage of algae aquaculture leases. Separate by species if available.

332.96 acres are just plants/kelp, but a total of ~600 acres of leases have kelp/aquatic plants farmed somewhere on them (with some portions taken up by shellfish).

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture

Kelp and aquatic plants are frequently farmed on the same lease as shellfish.

California

Summary of the status of algae culture

Seaweed is permitted using the same rules and regulations as shellfish (detailed below), but will be looked at on a somewhat more case-by-case basis, so expect potential variability in regulation.

Tribal

Tribal governments will need to be consulted in order to establish if the proposed project is on or near tribal lands of importance. New CEQA guidelines require communication and consideration from tribes, both federally recognized and not, for all projects. The Office of Aquaculture and the Department of Fish and Wildlife Tribal Liaison will assist in coordinating these consultations. See the [Tribal Affairs website for more information](#).

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

In some cases local jurisdiction has issuing authority. Local county offices administer and enforce zoning and subdivision regulations in accordance with County Plans and applicable state laws. Local county offices are responsible for processing applications for development permits and providing public information on general plan, zoning, and subdivision matters. To determine whether mariculture is zoned a permitted or conditional use in your location; contact the local county office within the county in which the aquaculture area is located. (Also, see below).

Local municipality website for algae aquaculture leasing/permitting:

Local authority may also rest with special districts, like Harbor Districts (where the State may have granted port development authority, and along with that, the leasing of water bottoms.

See Humboldt Bay (Humboldt Bay Harbor, Recreation, and Conservation District; the City of Arcata; and the City of Eureka), Monterey Bay, Agua Hedionda Lagoon, and San Diego Bay.

Local municipality application for algae aquaculture leasing/permitting:

[Humboldt Harbor District](#)

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

A variety of State agencies have some jurisdiction over aquaculture, but CA Department Fish & Wildlife (DFW) and the CA Fish & Game Commission (FGC) house the majority of code, regulations, and expertise for its oversight.

- FGC issues leases
- DFW registers commercial aquaculturists, and houses the State Aquaculture Coordinator's office
- CA Coastal Commission enforces the Coastal Zone Management Act (CZMA) in both State and Federal waters off CA, and uses Coastal Development Permits (State waters/land) or conducts Federal consistency reviews (Federal waters) as appropriate
- CA Department of Public Health also has oversight of growing areas and harvest closures comply with the National Shellfish Sanitation Program
- CA. State Water Resource Control Board handles WQCs

State agency contact(s) for algae aquaculture leasing/permitting:

- State Aquaculture Coordinator: Randy Lovell, randy.lovell@wildlife.ca.gov, 916-376-1650
- Marine: Sara Briley, sara.briley@wildlife.ca.gov, 562-342-7161

State agency website(s) for aquaculture leasing/permitting:

- [Department of Fish and Wildlife: Aquaculture](#)
- [Aquaculture Permit Counter](#)

State algae aquaculture leasing/permitting law(s):

- Chapters 1 through 8 of Division 12 of the Fish and Game Code (commencing with section 15000)
- [Marine Aquaculture Laws and Regulations Leaflet](#)
- [California Law Division 12: Aquaculture](#)

State algae aquaculture leasing/permitting regulation(s):

- Chapter 9 of Division 1 of Title 14, California Code of Regulations (commencing with section 235)
- [Marine Aquaculture Laws and Regulations Leaflet](#)
- [Code of Regulations, Title 14, Division 1, Subdivision 1, Chapter 9: Aquaculture](#)

State application for algae leasing/permitting:

- [Aquaculture registration](#)

- [Aquaculture lease information](#), pg. 53
- [Coastal Development Permit](#)

U.S. Army Corps of Engineers

Corps District(s):

Los Angeles and San Francisco (South Pacific Division)

Corps contact(s) for algae aquaculture permitting:

South Pacific Division Regulatory Appeals: 415-503-6574

Corps website for algae aquaculture permitting:

[South Pacific Division](#)

Corps permit for algae aquaculture:

- Los Angeles - Individual Permit (NWP 55 not used, but LA [regional conditions](#) may be helpful)
- San Francisco/Sacramento District [regional conditions](#) for NWP 55 (though frequently require IP)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

- IP or PCN. Can use [form ENG 4345](#). Instructions found at same weblink.
- [ENG 6082 form](#) (suggested by San Francisco)
- For San Francisco Bay [JARPA-eligible](#) (but not typically used for aquaculture)

Is there a State/Federal Joint Permit Application (JPA)?

San Francisco Bay area counties have a [JARPA form](#), but it isn't typically used for aquaculture.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

For San Francisco District, yes for activities in NWP 55 (including specific regional conditions). LA District requires an IP anyway (\$100).

Are there interagency meetings (state/federal)

As needed; determined by USACE staff & applicant.

Interagency Meeting Frequency:

As needed.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

- [Permit Guide to Aquaculture in California](#)
- [Aquaculture Permit Counter](#) (interagency permit materials submittal portal)

Process flowchart available?

CEQA Process Flow Chart [in Appendix A of guidelines](#)

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No information.

Is a pre-application meeting required, encouraged, not specified?

Available as first step in Aquaculture Permit Counter. Contact State Aquaculture Coordinator.

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Algae lease/permit application fee?

Yes, \$500; other permits also have accompanying fees.

Is applicant fee returned if denied?

Non-refundable.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing.

Summary of advertisement requirement of lease application by agency and/or applicant?

Agency publishes public notice in newspaper before hearing when considering lease.

Who pays for advertisement?

Agency

Business/Operations Plan

Is a management or operations plan required with application?

Information required as part of lease application.

Is a business plan required with application?

Recommended

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Regulations are silent; varies according to project complexity and location.

Lease Term and Conditions

Maximum term limit for lease?

Up to 25 years

Are renewals available?

Yes

Any renewal fee?

No

Is there an active use requirement? Any criteria to assess?

Yes, proof of use/production requirements.

Is there a production report requirement?

Yes for state leases, voluntary for Humboldt Bay leases.

Frequency for providing production report?

Monthly tax reports, annual production summary report.

Can an algae aquaculture lease be transferred?

Yes with approval of commission.

Is there a bid process for leases?

Yes

Any acreage limits?

Not in code, but in practice, competing uses often limit.

Limits per site

No information.

Limits per person

No information.

Limits on number of lease sites a person can hold

No information.

Rental and Use Fees

Annual rental fee?

- Variable rent.
- Set by Commission not less than \$2 / acre for 10+ acres and \$10 / acre for <10 acres.
- Privilege tax species-dependent, and in addition to base rent (see harvest surcharge below)

Any algae aquaculture harvest surcharge? If so, what is it?

May be a privilege tax based on production.

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

Applicant

Lease markering responsibility

Applicant

Biological assessment fee

No standardized fee, but a component typical of CEQA and absorbed by applicant.

Property tax

Possessory tax administered by counties, based on lease rent.

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources

Other websites of interest:

- [Aquaculture Matters](#)
- [NCCOS Coastal Aquaculture Siting and Sustainability program \(CASS\)](#)
- [National Seaweed Hub](#)
- [CEQA guidelines](#)

Definitions

State definition of aquaculture:

Form of agriculture devoted to the propagation, cultivation, maintenance, and harvesting of aquatic plants and animals in marine, brackish, and fresh water.

Any alternative names of a 'lease'?

- Lease = entitlement to location, under certain terms & conditions (eg: species, methods, duration, etc): from Fish & Game Commission.

- Permits = issued by various agencies for other approvals (eg: coastal development, §401 CWA cert, USACE permit, etc).

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Case by case; shall not unreasonably interfere with fishing/other uses/public trust values, unreasonably disrupt wildlife/marine habitats, or unreasonably harm ability of the marine environment to support ecologically significant flora and fauna.

Protected Resources and Critical Habitat Designations

Considered within CEQA.

Essential Fish Habitat (EFH)

NOAA PRD formal consultation within USACE permit

Navigation

CEQA & USACE & USCG

Historic resources

CEQA

Migratory Fish

NOAA PRD formal consultation within USACE permit.

Shellfish density threshold

Areas used by the public for digging clams shall not be leased. No other criteria.

Submerged aquatic vegetation (SAV)

- Within each permit & lease there may be specific conditions.
- San Francisco District regional condition: Notification to the Corps (in accordance with General Condition No. 32), including a compensatory mitigation plan, habitat assessment, and extent of proposed-project impacts to Eelgrass Beds are required for any activity permitted by NWP if it will take place within or adjacent to Eelgrass Beds (see Regional Condition B3).

Other natural resource protection measures?

Within CEQA

Riparian setback

Within CEQA

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Via Coastal Development Permit.

Is applicant required to provide list of riparian owners to permitting agency?

Yes. Coastal Development Permit application requires for neighboring properties within 100 ft of project along with stamped addressed envelopes. Corps 4345 form requires addresses of adjacent property owners but PCN form (6082) does not.

Is any consent of riparian owner required? If so, under what condition?

Not directly, but through the CDP process (Coastal Commission)

Coastal Zone Management (CZM) Consistency Determination

[Enforced by CA Coastal Commission](#)

Section 401 Water Quality Certification (WQC)

N/A

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[California NPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- Aquaculture Registration: New registration fee of \$927.75 with annual renewal of \$582.75. Additional renewal surcharge of \$697.75 if gross sales exceeded \$25K in previous calendar year. Registration fees adjusted annually.
- [Importation Permit](#) (fees adjusted annually)
- Coastal Development Permit in State Waters
- USCG PATON

Any algae aquaculture lease/permit holder training/exam requirement?

No

Are algae aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture

No information

Connecticut***Summary of status of algae culture***

Seaweed culture has its own program run by the state with detailed permitting information described in the combined aquaculture guide put out by the state. One of the most thoroughly documented programs in the U.S. Check with agency to hear more about available seaweed sites.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

There is no exclusive local jurisdiction line for seaweed harvest areas, and all areas are under sole jurisdiction of the state.

Local municipality website for algae aquaculture leasing/permitting:

N/A

Local municipality application for algae aquaculture leasing/permitting:

N/A

State Government

State lead agency for algae aquaculture leasing/permitting:

- Department of Agriculture, Bureau of Aquaculture issues lease and is lead state agency.
- Department of Energy and Environmental Protection (DEEP), Marine Fisheries reviews applications for effects on fish, fisheries and fish habitat.

State agency contact(s) for algae aquaculture leasing/permitting:

David Carey, david.carey@ct.gov, 203-874-0696 x 103

State agency website(s) for aquaculture leasing/permitting:

[CT Bureau of Aquaculture](#)

State algae aquaculture leasing/permitting law(s):

- Chapter 422, Ch. 22, sections 11c-11k (particularly 11j): [Planting and Cultivating Seaweed](#)
- [List of all relevant statutes: p. 33](#)
- [General Statutes of Connecticut](#)

State algae aquaculture leasing/permitting regulation(s):

- [RCSA Title 26](#)

State application for algae leasing/permitting:

- [Department of Agriculture: Seaweed](#)

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for algae aquaculture permitting:

Cori Rose, cori.m.rose@usace.army.mil, 978-318-8306

If old, can also try:

Leslie Martin, leslie.martin@usace.army.mil, 978-318-8688

Corps website for algae aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for algae aquaculture:

[Connecticut General Permit](#) Activity 16

NWP 55 suspended in New England.

Corps permit expiration:

19-Aug-21

Corps application for algae aquaculture permitting:

[UConn Aquaculture resources](#); Select "Joint Agency Application for Marine Aquaculture". Given that sugar kelp is listed as a species on the form, this form can still be used for seaweed.

Is there a State/Federal Joint Permit Application (JPA)?

Yes, submitted to DA/BA who coordinates review. Can also be found on [DoAg website](#).

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

SV Eligible. Temporary structures under <1,000 sq ft OR suspended cages within footprint of an authorized fixed/floating structure with depth/clearance reqs OR upweller floats <160 sf with depth/clearance reqs. No SVNF needed beyond state application No notice required but DEEP notifies Corps weekly and in turn Corps provides letter of verification to applicant.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

PCN required. Includes vertical-drop longlines for seaweed.

Is a Pre-Construction Notification (PCN) required?

JPA required in lieu of PCN.

Are there interagency meetings (state/federal)?

Yes, joint permit screening meeting.

Interagency Meeting Frequency:

Quarterly

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

- Excellent [State Guide](#)

Process flowchart available?

- [See pg. 18 of guide](#)
- An "outline" of process also provided to applicants

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Aquaculture mapping atlas](#)
- Can contact DABA for more information
- [A guide to NY and CT's shellfish and seaweed aquaculture viewer](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged, but mostly via email; applicant will be informed of best DABA contact for process.

Application Fees

Any pre-determination meeting fee for applicants?

No

Algae lease/permit application fee?

No true lease for seaweed, and no application processing fee (for either seaweed application or JPA), but annual license fee.

Is applicant fee returned if denied?

N/A

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No

Summary of advertisement requirement of lease application by agency and/or applicant?

N/A

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

Yes

Is a business plan required with application?

Not required, but encouraged; business and finance planning info [under 'Economics of Aquaculture.'](#)

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

Up to 5 years.

Are renewals available?

Yes

Any renewal fee?

Usual annual license fee.

Is there an active use requirement? Any criteria to assess?

Yes, but enforcement limited. Must make a good faith effort to cultivate and harvest seaweed from the licensed area.

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can an algae aquaculture lease be transferred?

No

Is there a bid process for leases?

No

Any acreage limits?

No information

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

\$25/acre annual license fee

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

- Possible DEEP Structures, Dredging, Fill (SDF) and Tidal Wetlands Permits (have fees)

Land surveyor/hydrographic survey

No information

Lease markering responsibility

No information

Biological assessment fee

N/A

Property tax

No information

Present shellfish value assessment on proposed lease site?

Not required

Additional Information Sources

Other websites of interest:

- [A guide to mariculture aquaculture permitting](#)
- Connecticut specific resources from [Seaweed Hub](#)

Definitions

State definition of aquaculture:

Controlled rearing, cultivation and harvest plants and animals in land-based and marine-based culture systems, tanks, containers, impoundments, floating and submerged nets or pens and ponds.

Any alternative names of a 'lease'?

Seaweed Area License Agreement (access to a site, not ownership of a lease).

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Limitation of number of vertical lines to reduce entanglement and use of weighted line to keep lines vertical, taut.

Protected Resources and Critical Habitat Designations

Standard, coordinated by USACE, USFWS, and CT DEEP Fisheries.

Essential Fish Habitat (EFH)

Standard, coordinated by USACE and CT DEEP Fisheries.

Navigation

No unreasonable interference with navigation. 200' setback from federal navigation projects. Any structure or work that extends closer to the horizontal limits of a FNP than a distance 3x the authorized depth shall be subject to removal at the owner's expense prior to any Corps dredging or performance of any hydrographic surveys.

CT DEEP Boating Safety Division will monitor.

Historic resources

Standard, all applications sent to CT SHPO.

Migratory Fish

No information.

Shellfish density threshold

Can't interfere with established shellfishing.

Submerged aquatic vegetation (SAV)

- Activity banned in any eelgrass bed.
- Minimum buffer of 25 ft for routine lease activity.

Other natural resource protection measures?

Must use native species sourced from within Long Island Sound; for native kelp, source tissue must be obtained from Long Island Sound or a CT hatchery that is producing native kelp sores originating from Long Island Sound source tissue.

Riparian setback

No information.

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information

Any riparian owner notice requirement for lease applications?

USACE will notify abutters in case of needing Individual Permit.

Is applicant required to provide list of riparian owners to permitting agency?

Provided to Corps.

Is any consent of riparian owner required? If so, under what condition?

No information

Coastal Zone Management (CZM) Consistency Determination

DEEP, LWRD will determine consistency.

Section 401 Water Quality Certification (WQC)

No information.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

See [DEEP website](#) for more info if intending to discharge pollutants.

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- [Permit Requirements for Aquaculture in CT](#)

Possible needs:

- Sci./Resource Assess. License (free, non-commercial uses)
- Possible DEEP Structures, Dredging, Fill (SDF) and Tidal Wetlands Permits (have fees)
- Seaweed Commodity Licenses for Production (Raw Agricultural or Processed)

Any algae aquaculture lease/permit holder training/exam requirement?

Hazard Analysis and Critical Control Point training.

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

Town and state shellfish parcels total about 1,700 lots.

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

If applying to farm seaweed on an established shellfish lease, do not need to submit annual \$25 seaweed license fee.

Delaware

Summary of the Status of Algae Culture

Information on seaweed culture is not available for Delaware at this time.

Florida

Summary of the status of algae culture

Seaweed culture can be permitted on submerged lands leases. While the usual water column lease regulations are generally the same as they are for shellfish, some rules (such as acreage of leases) will be dealt with on a case-by-case basis.

Seaweed is NOT covered by Florida's PGP SAJ 99, so an IP from the Corps is needed (though agency is working on getting SAJ updated to involve seaweed). Seaweed is also subject to additional aquatic plant regulations from FDACS.

Tribal

None

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

In Hillsborough County, the Port retains leasing rights.

Local municipality website for algae aquaculture leasing/permitting:

No aquaculture leases in that county at this time.

Local municipality application for algae aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

Department of Agriculture and Consumer Services (FDACS), Division of Aquaculture and Division of Plant Industry

State agency contact(s) for algae aquaculture leasing/permitting:

- Charlie Culpepper, Assistant Director, charlie.culpepper@fdacs.gov, 850-617-7616
- Serina Rocco, CPM, Environmental Administrator. serina.rocco@fdacs.gov, 850-617-7621

State agency website(s) for aquaculture leasing/permitting:

- [FDACS Division of Aquaculture](#)
- [Aquatic Plants](#)

State algae aquaculture leasing/permitting law(s):

- [Florida Statutes Chapter 253 and Chapter 597](#)
- [Aquatic Plants Rules and Regulations](#)

State algae aquaculture leasing/permitting regulation(s):

- [Aquaculture Best Management Practices Manual](#)
- Leasing regs: [Florida Administrative Code 18-21.020-.900](#)
- [Aquatic Plants Rules and Regulations](#)
- [A Brief Summary of the Nursery Inspection Law](#)

State application for algae leasing/permitting:

[Submerged land lease](#)

U.S. Army Corps of Engineers

Corps District(s):

Jacksonville

Corps contact(s) for algae aquaculture permitting:

Krista Sabin, krista.d.sabin@usace.army.mil, 561-335-8099

Corps website for algae aquaculture permitting:

[Jacksonville Regulatory Source Book](#)

Corps permit for algae aquaculture:

[IP](#)

Corps permit expiration:

10-Aug-23

Corps application for algae aquaculture permitting:

- [IP](#)
- Also see [Aquaculture Certificate of Registration](#)

Is there a State/Federal Joint Permit Application (JPA)?

N/A

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

IP always required

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

N/A

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

- [Lease guidelines written for shellfish](#); leasing for seaweed should be nearly identical to shellfish water column leases, but know that some details may change
- [Further management guidance](#)

Process flowchart available?

Highly rudimentary visual process in [leasing guide](#) above

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Division of Aquaculture GIS](#)

Is a pre-application meeting required, encouraged, not specified?

Available to assist with completion of application, but not required (HIGHLY advised for seaweed given unusual process).

Application Fees

Any pre-determination meeting fee for applicants?

No

Algae lease/permit application fee?

\$200

Is applicant fee returned if denied?

Yes

Corps Individual Permit fee

\$100 in rare case requested activity falls outside of Florida's PGP.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Depends on public comment.

Summary of advertisement requirement of lease application by agency and/or applicant?

Advertise in a local paper for three consecutive weeks.

Who pays for advertisement?

Applicant's responsibility, but typically paid for by Agency.

Business/Operations Plan

Is a management or operations plan required with application?

Yes ("development plan").

Is a business plan required with application?

Yes ("business development plan").

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Variable

Lease Term and Conditions

Maximum term limit for lease?

10 years

Are renewals available?

Yes

Any renewal fee?

No, lease rental fees due annually but no renewal fee is charged.

Is there an active use requirement? Any criteria to assess?

Failure of the lessee to perform effective cultivation shall constitute ground for cancellation of the lease and forfeiture to the state of all the works, improvements, and animal and plant life in and upon the leased land and water column. Effective cultivation shall consist of the grow out of the aquaculture product according to the business plan provided in the lease contract.

Maintenance according to BMPs; additional use requirements case-by-case

Is there a production report requirement?

Yes, annual audit report.

Frequency for providing production report?

Annually in January

Can an algae aquaculture lease be transferred?

Yes, \$50 transfer fee after leaseholder has held lease for 5 years from the original execution date.

Is there a bid process for leases?

n/a

Any acreage limits?

Case-by-case

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

Minimum rate of \$30 per acre and fractional acres (currently \$33.46), and a \$10.00 per acre and fractional acres surcharge.

Any algae aquaculture harvest surcharge? If so, what is it?

No but a \$10/acre or fractional acre annual surcharge.

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

\$10/acre surcharge, \$100 annual aquaculture certificate fee, \$35-\$460 annual nursery certificate fee.

Land surveyor/hydrographic survey

Applicant obtains two prints of survey from an approved land surveyor.

Lease markering responsibility

Applicant

Biological assessment fee

N/A, agency will conduct site inspection and resource assessment.

Property tax

N/A

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources

Other websites of interest:

- [Aquaculture Business Resources](#)
- [BMPs](#)

Definitions

State definition of aquaculture:

Cultivation of aquatic organisms.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

- See BMPs
- Leases in Aquaculture Use Zones help reduce user conflicts. Off-bottom gear must be marked with leaseholder identification information tags.

Protected Resources and Critical Habitat Designations

- See BMPs
- PGP includes special conditions for certain listed species which leasee shall comply with. PGP includes limitations for aqua activities within CHD of several ESA listed species.

Essential Fish Habitat (EFH)

Standard

Navigation

Standard under IP (note that state PGP has 100 ft setback from FNCs, but seaweed not covered under PGP).

Historic resources

Standard

Migratory Fish

No information

Shellfish density threshold

Lease cannot contain live bottoms or harvestable shellfish resources (more than five legal-size clams/square meter over over 50% of proposed area or oyster reef covering more than 100 square ft within proposed area)

Submerged aquatic vegetation (SAV)

Lease cannot contain seagrasses or live bottoms.

Other natural resource protection measures?

- [Full list of mandatory BMPs](#)

Riparian setback

- Notice riparian owner(s) within 500 ft of proposed lease. Structures and activities must be set back 25 ft from riparian rights line unless concurrence from owner.
- An aquaculture lease area for a non-riparian applicant shall not be approved when the distance is less than or equal to 100 ft waterward of mean or ordinary high water or less than or equal to 100 ft waterward of existing structures and permitted activities on sovereignty lands, unless the applicant obtains a letter of concurrence from the upland riparian owner.

Social capacity

n/a

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

Riparian rights are those incident to land bordering upon navigable waters. They are rights of ingress, egress, boating, bathing, and fishing and such others as may be or have been defined by law. Such rights are not of a proprietary nature. They are rights inuring to the owner of the riparian land but are not owned by him or her. They are appurtenant to and are inseparable from the riparian land. The land to which the owner holds title must extend to the ordinary high watermark of the navigable water in order that riparian rights may attach. Conveyance of title to or lease of the riparian land entitles the grantee to the riparian rights running therewith whether or not mentioned in the deed or lease of the upland. Statute 253.141

Any riparian owner notice requirement for lease applications?

Agency notifies riparian owners within 500 ft of the nominated area.

Is applicant required to provide list of riparian owners to permitting agency?

Agency notifies riparian owners within 500 ft of the nominated area.

Is any consent of riparian owner required? If so, under what condition?

Riparian owner has ability to comment on proposed activity. Letter of concurrence needed to work within riparian setbacks (see riparian setback definitions above).

Coastal Zone Management (CZM) Consistency Determination

[State approval constitutes compliances with CZM](#)

Section 401 Water Quality Certification (WQC)

No information

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Florida NPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- [Aquaculture certificate of registration](#) (\$100 annually)
- [Nursery certificate of registration](#) (\$35-\$460 annually)
- PATON
- [Appropriate documentation for imported seed/stock](#)

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture

Farmers may grow macroalgae inside already approved gear system such as oyster gear.

Georgia

Summary of the Status of Algae Culture

Marine aquaculture is managed through the Coastal Resources Division. Seaweed aquaculture can be best started by trialing it under an experimental fishing permit. Contact agency to discuss the process.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for algae aquaculture leasing/permitting:

No information.

Local municipality application for algae aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

Department of Natural Resources, Coastal Resources Division

State agency contact(s) for algae aquaculture leasing/permitting:

Dr. Carolyn Belcher, carolyn.belcher@dnr.ga.gov, 912-264-7218

State agency website(s) for aquaculture leasing/permitting:

[Georgia Coastal Resources Division](#)

State algae aquaculture leasing/permitting law(s):

[O.C.G.A. 27-4-251 through 254](#)

State algae aquaculture leasing/permitting regulation(s):

No information

State application for algae leasing/permitting:

No information

U.S. Army Corps of Engineers

Corps District(s):

Savannah

Corps contact(s) for algae aquaculture permitting:

800-448-2402

Corps website for algae aquaculture permitting:

[Savannah Nationwide Permits](#)

Corps permit for algae aquaculture:

NWP 55 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

Use [PCN form ENG 6082](#)

Is there a State/Federal Joint Permit Application (JPA)?

No

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

PCN at minimum

Are there interagency meetings (state/federal)

Yes

Interagency Meeting Frequency:

Monthly

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No information

Process flowchart available?

No information

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No information

Is a pre-application meeting required, encouraged, not specified?

Pre-application meetings are encouraged and assistance with any department forms is offered.

Application Fees

Any pre-determination meeting fee for applicants?

No information

Algae lease/permit application fee?

No information

Is applicant fee returned if denied?

No information

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information

Summary of advertisement requirement of lease application by agency and/or applicant?

No information

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

No information

Is a business plan required with application?

No information

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

No information

Are renewals available?

No information

Any renewal fee?

No information

Is there an active use requirement? Any criteria to assess?

No information

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can an algae aquaculture lease be transferred?

No information

Is there a bid process for leases?

No information

Any acreage limits?

No information

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

No information

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

No information

Lease markering responsibility

No information

Biological assessment fee

No information

Property tax

No information

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

No information

Any alternative names of a 'lease'?

No information

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

No information

Protected Resources and Critical Habitat Designations

No information

Essential Fish Habitat (EFH)

No information

Navigation

No information

Historic resources

No information

Migratory Fish

No information

Shellfish density threshold

No information

Submerged aquatic vegetation (SAV)

No information

Other natural resource protection measures?

No information

Riparian setback

No information

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information

Any riparian owner notice requirement for lease applications?

No information

Is applicant required to provide list of riparian owners to permitting agency?

No information

Is any consent of riparian owner required? If so, under what condition?

No information

Coastal Zone Management (CZM) Consistency Determination

Must obtain individual [CZM consistency concurrence from GADNR](#).

[Georgia CRD Federal Consistency](#)

Section 401 Water Quality Certification (WQC)

No information

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Georgia NPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

No information

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture

No information

Guam

Summary of the status of algae culture

No information

Tribal

No information

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information

Local municipality website for algae aquaculture leasing/permitting:

No information

Local municipality application for algae aquaculture leasing/permitting:

No information

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

- Department of Agriculture, Division of Aquatic and Water Resources (DAWR) coordinates
- Department of Land Management permits the land use
- Guam EPA handles discharge

State agency contact(s) for algae aquaculture leasing/permitting:

DAWR fisheries biologists:

- Brent Tibbatts, brent.tibbatts@doag.guam.gov
- Frank Roberto, frank.roberto@doag.guam.gov

State agency website(s) for aquaculture leasing/permitting:

No information.

State algae aquaculture leasing/permitting law(s):

No information.

State algae aquaculture leasing/permitting regulation(s):

[9 GAR Div. 2, Chapter 12](#): Fishing Regulations

State application for algae leasing/permitting:

No information.

U.S. Army Corps of Engineers

Corps District(s):

Honolulu

Corps contact(s) for algae aquaculture permitting:

808-835-4303

Corps website for algae aquaculture permitting:

[Honolulu Nationwide Permits](#)

Corps permit for algae aquaculture:

NWP 55; [Regional conditions](#) (no special conditions)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

PCN. Can use [form ENG 6082](#).

Is there a State/Federal Joint Permit Application (JPA)?

No

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No

Is a pre-application meeting required, encouraged, not specified?

Encouraged by both Corps and Guam.

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Algae lease/permit application fee?

Possibly. Fees have not been set but may be charged.

Is applicant fee returned if denied?

No information.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing required.

Summary of advertisement requirement of lease application by agency and/or applicant?

Public hearing only.

Who pays for advertisement?

No information.

Business/Operations Plan

Is a management or operations plan required with application?

Yes, both general operations plan and contingency plan for storms required.

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

Permits good for 1 year.

Are renewals available?

Yes

Any renewal fee?

No

Is there an active use requirement? Any criteria to assess?

No

Is there a production report requirement?

Yes

Frequency for providing production report?

No information.

Can an algae aquaculture lease be transferred?

No

Is there a bid process for leases?

No

Any acreage limits?

No

Limits per site

None

Limits per person

None

Limits on number of lease sites a person can hold

None

Rental and Use Fees

Annual rental fee?

No

Any algae aquaculture harvest surcharge? If so, what is it?

No information.

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information.

Land surveyor/hydrographic survey

N/A

Lease markering responsibility

Applicant

Biological assessment fee

N/A

Property tax

No information.

Present algae value assessment on proposed lease site?

No information.

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

No information.

Any alternative names of a 'lease'?

"Permit" issued by DLM.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Ideally should culture native species; the permitting process will be more stringent for nonnative ventures. Aquaculture must be in waters greater than 60 ft in depth considering the need to submerge farms in the event of typhoons.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

Standard

Other natural resource protection measures?

Contingency plan for storms required; Aquaculture must take place in waters greater than 60ft in depth in order to protect from typhoon damage.

Riparian setback

N/A

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Public hearing.

Is applicant required to provide list of riparian owners to permitting agency?

N/A

Is any consent of riparian owner required? If so, under what condition?

N/A

Coastal Zone Management (CZM) Consistency Determination

[Individual CZM certification required](#)

Section 401 Water Quality Certification (WQC)

[Waived.](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Regulated by NPDES in event of discharge](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- Import permits
- USCG PATON
- Certificate of health (and USFWS permits) needed if coming from outside of U.S.

Any algae aquaculture lease/permit holder training/exam requirement?

N/A

Are algae aquaculture leases/permits restricted to residents only?

No information.

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information.

Number of complete algae applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information.

Total acreage of algae aquaculture leases. Separate by species if available.

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture

No information.

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information.

Multitrophic Systems

Attachment to shellfish culture

No information.

Hawaii

Summary of the Status of Algae Culture

- Aquatic plants are mentioned in mariculture rulings; however, explicit guidance on seaweed aquaculture legality is lacking. Regulations listed are the same as those used for finfish under general mariculture/aquaculture rules (using a submerged lands lease), but they should be considered applicable on a case-by-case basis, and discussions with state agencies may nullify off-shore seaweed plans.
- Private property and the Hawaiian fish ponds providing avenues of cultivation with less permitting complexity (potentially in conjunction with other species).

Tribal

No lease shall be granted by the board which conflicts with or impairs konohiki fishing rights. Any traditional fishing or marine activity conducted within konohiki fishing grounds is subject to all applicable state laws and rules enacted pursuant to the State's police powers over fisheries and navigable waters.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No development can occur within a Special Management Area unless a permit is obtained from the county.

Local municipality website for algae aquaculture leasing/permitting:

No information.

Local municipality application for algae aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

- DLNR, Office of Conservation & Coastal Lands (OCCL) administers Conservation District Use Application for submerged lands.
- Board of Land and Natural Resources (DLNR) approves lease.
- Division of Aquatic Resources issues Aquaculture Dealer Permit.

State agency contact(s) for algae aquaculture leasing/permitting:

Samuel J. Lemmo

Office of Conservation and Coastal Lands Kalanimoku Building
1151 Punchbowl St., Room 131
Honolulu, HI 96813
Ph: (808) 587-0377

State agency website(s) for aquaculture leasing/permitting:

- [Office of Conservation and Coastal Lands](#)
- [BLNR Board](#) (for leases)

State algae aquaculture leasing/permitting law(s):

- [Sections 220-1, 187A-3.5](#)
- [Chapter 190D](#): Ocean and Submerged Land Leasing

State algae aquaculture leasing/permitting regulation(s):

- [Aquaculture License](#)
- [Aquaculture Loan Division](#)
- [Aquaculture Special Development Fund](#)

State application for algae leasing/permitting:

- [Aquaculture License](#)
- [CDUA](#)
- [BLNR Board](#)

U.S. Army Corps of Engineers

Corps District(s):

Honolulu

Corps contact(s) for algae aquaculture permitting:

808-835-4303

Corps website for algae aquaculture permitting:

[Honolulu Nationwide Permits](#)

Corps permit for algae aquaculture:

NWP 55; [Regional conditions](#) (no special conditions)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

PCN. Can use [form ENG 6082](#).

Is there a State/Federal Joint Permit Application (JPA)?

No information.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

PCN at minimum

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

[Permits and Regulatory Requirements for Aquaculture in Hawaii](#)

Process flowchart available?

No information.

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Hawaii Statewide GIS Program](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged by Corps and by State of HI.

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Algae lease/permit application fee?

- Department (DAR) Aquaculture permit: \$50
- CUDP - Board Permit: \$100 application fee, plus additional \$100 per potential developed acre up to max. of \$2000.

Is applicant fee returned if denied?

No information.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Recommended before process, hearing required for state waters.

Summary of advertisement requirement of lease application by agency and/or applicant?

Public notice on at least 3 separate days for lease; can include newspaper notice for CDUP hearing.

Who pays for advertisement?

Applicant, \$250 for hearing (CDUP).

Business/Operations Plan

Is a management or operations plan required with application?

Yes

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

Issued by Board on a case-by-case basis (Chapter 190D Submerged Lands regs).

Are renewals available?

Yes

Any renewal fee?

No information.

Is there an active use requirement? Any criteria to assess?

Yes; if lease is abandoned, board may order removal or sale of all assets on the lease.

Is there a production report requirement?

Yes

Frequency for providing production report?

Annually by July 31.

Can an algae aquaculture lease be transferred?

Yes (with approval from board).

Is there a bid process for leases?

Yes

Any acreage limits?

Subject to negotiation with board.

Limits per site

N/A

Limits per person

N/A

Limits on number of lease sites a person can hold

N/A

Rental and Use Fees

Annual rental fee?

Yes; subject to negotiation with Board; may contain royalty payments.

Any algae aquaculture harvest surcharge? If so, what is it?

May supplement rent with royalty payments.

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

- \$50 site plan approval
- \$100 temporary variance
- [Full cost breakdowns](#)
- [CDUA application: \\$250-\\$2,500 \(2.5% cost of Board permit\)](#)

Land surveyor/hydrographic survey

\$50 subzone boundary determination fee.

Lease markering responsibility

Applicant

Biological assessment fee

- EA/EIS preparation costs are applicant's responsibility.
- Sanitary survey to classify a shellfish growing area is agency's responsibility.

Property tax

No information.

Present shellfish value assessment on proposed lease site?

No information.

Additional Information Sources

Other websites of interest:

- [Pacific Aquaculture and Coastal Resource Center \(PACRC\)](#)
- [National Seaweed Hub](#)

Definitions

State definition of aquaculture:

"Aquaculture" means the cultivation and production of aquatic life in a controlled salt, brackish, or fresh water environment.

Any alternative names of a 'lease'?

No information

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

- Lessee responsible for removal of all animals/plants if needed to protect environment or public safety. Costs of eradication of any escaped stock fall on lessee.
- Note military uses and other use conflicts off-shore.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

State Historic Preservation Division will have opportunity to review projects for historical sites, burial sites, etc. Must notify at least 90 days before any action that might affect historic site. Historical site surveys have specific costs.

Migratory Fish

No information.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

Standard

Other natural resource protection measures?

Special Management Area Use Permit (SMAP) needed in Special Management Areas.

Riparian setback

No information.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

No information.

Is applicant required to provide list of riparian owners to permitting agency?

No information.

Is any consent of riparian owner required? If so, under what condition?

No information.

Coastal Zone Management (CZM) Consistency Determination

Aquaculture facilities that require a Corps permit will be sent to the state CZMP for consistency review as part of the federal permit process.

Section 401 Water Quality Certification (WQC)

Not required.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

\$1,000 filing fee for 5-year [NPDES permit](#) in event of discharge (of a sufficient level).

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

Permit to Import Restricted Commodities from DOA (fee applies)

Any algae aquaculture lease/permit holder training/exam requirement?

No information.

Are algae aquaculture leases/permits restricted to residents only?

No information.

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information.

Number of complete algae applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information.

Total acreage of algae aquaculture leases. Separate by species if available.

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)**Harvest and value of algae aquaculture**

No information.

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information.

Multitrophic Systems**Attachment to shellfish culture**

Could potentially be farmed in conjunction with other species in fish ponds or private lands.

Louisiana***Summary of the Status of Algae Culture***

Due to the passage of a recent bill, all mariculture structures are currently in development. Domestic Aquatic Organism Permit/Mariculture Permit will both be required. Laws are currently silent on plants; a special secretarial permit could allow or disallow a plant farm. Contact Robert Bourgeois (rbourgeois@wlf.la.gov) for more info.

Tribal

No information

Local Municipality**Any local municipality leasing/permitting authority? If so, who?**

No information

Local municipality website for algae aquaculture leasing/permitting:

No information

Local municipality application for algae aquaculture leasing/permitting:

No information

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

- Department of Wildlife and Fisheries is given authority over issuing permits and leases for oyster-related activities on state submerged lands.
- The Office of Coastal Management within the Department of Natural Resources (DNR) is responsible for the management and regulations of the use of Louisiana's coastal management zone.
- The Office of Coastal Management sets forth additional regulations.

State agency contact(s) for algae aquaculture leasing/permitting:

Robert Bourgeois, rbourgeois@wlf.la.gov, 225-765-0765

State agency website(s) for aquaculture leasing/permitting:

[Wildlife & Fisheries, Commercial Licenses and Permits](#)

State algae aquaculture leasing/permitting law(s):

Laws are currently silent on plants; a special secretarial permit could allow or disallow a plant farm. Contact Robert Bourgeois for more info.

State algae aquaculture leasing/permitting regulation(s):

Laws are currently silent on plants; a special secretarial permit could allow or disallow a plant farm. Contact Robert Bourgeois for more info.

State application for algae leasing/permitting:

Upcoming

U.S. Army Corps of Engineers

Corps District(s):

Vicksburg, New Orleans, Galveston

Corps contact(s) for algae aquaculture permitting:

- New Orleans: 504-862-2300
- Galveston: 409-766-3869

Corps website for algae aquaculture permitting:

- [New Orleans Regulatory Permits](#)
- [Galveston Regulatory Permits](#)
- [Vicksburg Nationwide Permits](#)

Corps permit for algae aquaculture:

- NWP 55 is denied unless certification is first acquired from Louisiana DNR
- [NWP 55 regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

- PCN. Can use [form ENG 6082](#)
- [JPA for alternative leases \(CUP\)](#)

Is there a State/Federal Joint Permit Application (JPA)?

[If a Coastal Use Permit \(CUP\) is needed, joint form](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes

Are there interagency meetings (state/federal)

No information

Interagency Meeting Frequency:

No information

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No information

Process flowchart available?

No information

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No information

Is a pre-application meeting required, encouraged, not specified?

No information

Application Fees

Any pre-determination meeting fee for applicants?

No information

Algae lease/permit application fee?

Domestic Aquatic Organism Permit/Mariculture Permit will both be required. Laws are currently silent on plants; a special secretarial permit could allow or disallow a plant farm.

Is applicant fee returned if denied?

No information

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information

Summary of advertisement requirement of lease application by agency and/or applicant?

No information

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

No information

Is a business plan required with application?

No information

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

No information

Are renewals available?

No information

Any renewal fee?

No information

Is there an active use requirement? Any criteria to assess?

No information

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can a algae aquaculture lease be transferred?

No information

Is there a bid process for leases?

No information

Any acreage limits?

No information

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

No information

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

No information

Lease markering responsibility

No information

Biological assessment fee

No information

Property tax

No information

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

Producing, raising, managing, harvesting, transporting or marketing of aquatic livestock in privately owned waters or ponds. This definition does not include traditional or alternative oyster culture activities on state owned water bottoms.

Any alternative names of a 'lease'?

No information

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

No information

Protected Resources and Critical Habitat Designations

No information

Essential Fish Habitat (EFH)

No information

Navigation

No information

Historic resources

No information

Migratory Fish

No information

Shellfish density threshold

No information

Submerged aquatic vegetation (SAV)

No information

Other natural resource protection measures?

No information

Riparian setback

No information

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information

Any riparian owner notice requirement for lease applications?

No information

Is applicant required to provide list of riparian owners to permitting agency?

No information

Is any consent of riparian owner required? If so, under what condition?

No information

Coastal Zone Management (CZM) Consistency Determination

[Conditionally consistent per LDNR](#)

Section 401 Water Quality Certification (WQC)

N/A for this NWP

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[LPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

Domestic Aquatic Organism Permit and Mariculture Permit will both be required. Seaweed may require a special secretarial permit.

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

No information

Maine

Summary of the Status of Algae Culture

- Seaweed aquaculture follows the same system as shellfish, using a non-discharge Standard Lease. Marine algae must be obtained or cultured from stock originating in Maine coastal waters.
- [Act To Amend Maine's Aquaculture Leasing and Licensing Statutes \(2021\)](#) to take effect.
- Also note that Maine provides a number of leasing options, including two levels of standard lease, an experimental leasing program, and limited purpose aquaculture leases. Information is provided primarily in terms of the Standard Leasing program, but further details are provided for experimental and limited purpose leases where possible.

Tribal

Corps requires applicant to apply to all five Tribal Historic Preservation Officers. DMR retains leasing authority and Corps issues permit.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

For intertidal leasing, the owner of the intertidal to be leased and the municipal officers, if the municipality has an algae conservation program, must consent. Notice given to municipality of scoping session for standard lease. For LPA licenses, the owner of the intertidal and the municipal shellfish committee, in towns with a municipal conservation program, must consent.

Local municipality website for algae aquaculture leasing/permitting:

No information.

Local municipality application for algae aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

Department of Marine Resources (DMR)

State agency contact(s) for algae aquaculture leasing/permitting:

Director Marcy Nelson (also contact for pre-application meeting),
marcy.nelson@maine.gov, 207-441-4681

State agency website(s) for aquaculture leasing/permitting:

[Department of Marine Resources \(DMR\)](#)

State algae aquaculture leasing/permitting law(s):

- [DMR Aquaculture Laws and Regulations](#)
- [Act to Amend Maine's Aquaculture Leasing and Licensing Statutes](#) (2021, to take effect)

State algae aquaculture leasing/permitting regulation(s):

[DMR Chapter 2: Aquaculture Lease Regulations](#)

State application for algae leasing/permitting:

[Aquaculture Lease Applications and Forms](#)

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for algae aquaculture permitting:

LeeAnn B. Neal, leeann.neal@usace.army.mil, 207-623-8367, ext. 2

Corps website for algae aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for algae aquaculture:

[Maine General Permit Activity 23](#). NWP 55 suspended in New England (4/13/2021)

Corps permit expiration:

14-Oct-25

Corps application for algae aquaculture permitting:

- Category 1: SVNF: See pg. 36 of General Permit above
- Category 2: PCN using ENG Form 4345: See pgs. 37-42 of General Permit above.
- See General Permit for other submission requirements. Either of above forms may instead use [JPA](#)
- [Application checklist](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [JPA](#).

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

See regional conditions; must meet several conditions for SVNF instead of PCN regarding acreage, impacts to environment, gear, FNPs, etc.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

PCN required. Cannot have more than minimal impacts to environmental resources/navigation

Is a Pre-Construction Notification (PCN) required?

Yes, for Category 2.

Are there interagency meetings (state/federal)

Yes, via Corps consultation process.

Interagency Meeting Frequency:

Every 3 weeks.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

[Conducting Aquaculture in Maine](#), currently pending on DMR site.

Process flowchart available?

[For state process](#).

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Aquaculture Map of current and pending lease sites.](#)

Is a pre-application meeting required, encouraged, not specified?

Required by DMR for Standard Lease applications, encouraged by Corps.

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Algae lease/permit application fee?

\$1,500 for standard lease (\$2,000 for discharge), \$100 for experimental lease, \$100 (residents) or \$400 (non-residents) for LPA (LPA fees are \$50 and \$300 respectively until January 1, 2022).

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Required of applicant for standard lease.

Summary of advertisement requirement of lease application by agency and/or applicant?

DMR Public hearing for standard lease, may be required for experimental lease. Applicant required to publish in newspaper before scoping session and after leases granted.

Who pays for advertisement?

Applicant for scoping session, DMR for public hearing (applicant may have to reimburse for public hearing with new legislation).

Business/Operations Plan

Is a management or operations plan required with application?

Yes (application qualifies as operational plan).

Is a business plan required with application?

Operational plans, financial capability and cost estimates, and technical capability must be provided in application.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Estimates are very difficult, depending on how many applications in the queue and the time of year for site assessments. 1-2 years for standard lease and 3-12 mths for experimental leases without hearings. LPAs within weeks.

Lease Term and Conditions

Maximum term limit for lease?

Up to 20 years for standard lease and 3 years for experimental lease.

Are renewals available?

Yes for standard and LPA. For experimental lease no, unless for scientific research only.

Any renewal fee?

Yes, \$1,500 for standard lease. LPA is same as initial application.

Is there an active use requirement? Any criteria to assess?

Yes - lease may be revoked if not used. Monthly reporting of harvests and annual inspections are required. An annual report may also be required.

Is there a production report requirement?

Yes.

Frequency for providing production report?

Monthly.

Can an algae aquaculture lease be transferred?

Yes, subject to fees (\$2,500 for non-discharge, \$5,000 for discharge).

Is there a bid process for leases?

No.

Any acreage limits?

Yes.

Limits per site

Up to 100 acres for standard lease and up to 4 acres for experimental lease.

Limits per person

1,000 acres combined across all kinds of leases (typically 500, but can be increased up to the 1,000 if deemed beneficial and appropriate; [Title 12, sec. 6072](#)).

Limits on number of lease sites a person can hold

No (but maximum of 4 LPA licenses per licensee)

Rental and Use Fees

Annual rental fee?

Yes: \$100/acre for both standard and experimental lease

Any algae aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

Additional fees for lease transfers/expansions, [Aquaculture License](#)

Land surveyor/hydrographic survey

DMR conducts on-site mapping.

Lease markering responsibility

Applicant

Biological assessment fee

Must conduct a Department-approved environmental baseline if using a Discharge Permit (otherwise n/a)

Property tax

No information

Present algae value assessment on proposed lease site?

Not value but occurrence and abundance.

Additional Information Sources**Other websites of interest:**

- [Public Participation in the leasing process](#)
- [National Seaweed Hub](#)

Definitions**State definition of aquaculture:**

"Aquaculture" means the culture or husbandry of marine organisms by any person. Storage or any other form of impounding or holding wild marine organisms, without more, shall not qualify as aquaculture. In order to qualify as aquaculture, a project must involve affirmative action by the lessee to improve the growth rate or quality of the marine organism.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions**Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?**

If aquaculture has been conducted in a manner substantially injurious to marine organisms, if no substantial aquaculture or research has been conducted over the course of the lease or if any condition of the lease has been violated, the commissioner may initiate revocation proceedings and revoke the lease.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

GC 17 of Maine's General Permit provides list of salmon areas for which screening for impacts on EFH is required (SV projects exempt).

Navigation

No unreasonable interference with navigation. Any structure or work that extends closer to the horizontal limits of a FNP than a distance 3x the authorized depth requires a PCN and shall be subject to removal at the owner's expense prior to any Corps dredging or performance of any hydrographic surveys.

For Maine's purposes, high tide "short cuts" do not qualify as navigational ways.

Historic resources

Corps requires applicant to notify Maine Historic Preservation Commission.

Migratory Fish

Corps process. Could also be considered under DMR decision criterion #5 (Existing System Support).

Shellfish density threshold

Unreasonable interference or failure to meet decision criteria. Criteria are described at 12 M.R.S.A. §6072 (7-A) and DMR Regulations Chapter 2.37.

Submerged aquatic vegetation (SAV)

PCN required unless avoidance and 25' setback. Also assessed by DMR as part of decision criteria #5: Existing System Support.

Other natural resource protection measures?

- Marine algae (all seaweeds such as reds, greens, browns or kelps) and green sea urchins shall be obtained or cultured from stock originating in Maine coastal waters.
- DMR Chapter 24 regulations that govern importation and movement of marine organisms for biosecurity.

Riparian setback

Must meet decision criteria for ingress and egress - all riparian owners within 1,000 ft of proposed lease are notified. For LPAs, riparian landowners within 300 ft are notified. For both, this is measured from MLW.

Social capacity

See decision criteria. Criteria are described at 12 M.R.S.A. §6072 (7-A).

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

Shorefront property owner whose property boundaries are within 1,000 ft of proposed lease boundaries (<300 ft for LPAs).

Any riparian owner notice requirement for lease applications?

If project is within 1,000 ft; 300 ft for LPAs

Is applicant required to provide list of riparian owners to permitting agency?

Yes, certified by town. [Riparian Owners List form](#).

Is any consent of riparian owner required? If so, under what condition?

Yes, for intertidal leases only (to the mean low water mark).

Coastal Zone Management (CZM) Consistency Determination

[Activities covered under GP are consistent with CZM standards](#). Both the Site Law (38 MRS sec. 488(13)) and NRPA (38 MRS sec. 480-Q(10)) contain exemptions for aquaculture projects subject to DMR's review and approval under aquaculture leasing laws.

Section 401 Water Quality Certification (WQC)

[Activities covered under GP are consistent with WQC standards](#). LPAs must be located in areas classified as approved or conditionally approved, unless for the cultivation of seed only. No LPAs within a 300:1 dilution zone around a wastewater treatment plant (Chapter 2.90(3)(D)). Aquaculturists are also subject to any harvest closures/restrictions due to water quality or biotoxin.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#).

See forms at end of standard lease application w/ discharge.

If discharge: [Maine NPDES Permits](#).

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- USCG PATON
- Aquaculture Harvest License (\$133)
- Important/Introduction/Movement of Invertebrates Application
- [DMR Additional Forms](#)

Any algae aquaculture lease/permit holder training/exam requirement?

No for leases; annual training for LPA license holders. Certain waters require Vibrio training & control plan through Bureau of Public Health

Are algae aquaculture leases/permits restricted to residents only?

No.

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

[Table of Standard and Experimental Aquaculture Leases](#)

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture

Can pay to have a shellfish lease expanded/altered for marine algae (see reg 2.61).

Maryland

Summary of the status of algae culture

Traditional commercial seaweed culture is not allowed; however, seaweed now has statutory authority to occur on enterprise leases for aquatic plants in state waters as described in Md. NATURAL RESOURCES Code Ann. § 4-11A-05. Use non-shellfish Aquaculture Permit unless department advises otherwise.

Tribal

N/A

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

N/A

Local municipality website for algae aquaculture leasing/permitting:

N/A

Local municipality application for algae aquaculture leasing/permitting:

N/A

State Government

State lead agency for algae aquaculture leasing/permitting:

Department of Natural Resources, Fisheries Service, Aquaculture and Industry Enhancement Division.

State agency contact(s) for algae aquaculture leasing/permitting:

Karl Roscher (Director), karl.roscher@maryland.gov, 410-260-8313

State agency website(s) for aquaculture leasing/permitting:

[Maryland DNR: Non-Shellfish Aquaculture](#)

State algae aquaculture leasing/permitting law(s):

- [Md. NATURAL RESOURCES Code Ann. § 4-11A-05](#)
- mgaleg.maryland.gov

State algae aquaculture leasing/permitting regulation(s):

[COMAR Title 8 - primarily 08.02.14](#)

State application for algae leasing/permitting:

- [DNR: Non-Shellfish Aquaculture](#)
- [Aquaculture Permit](#)

U.S. Army Corps of Engineers

Corps District(s):

Baltimore

Corps contact(s) for algae aquaculture permitting:

Beth Bachur, beth.bachur@usace.army.mil, 410-962-4336

Corps website for algae aquaculture permitting:

[Maryland Permitting](#)

Corps permit for algae aquaculture:

NWP 55 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

[PCN or IP form](#)

Is there a State/Federal Joint Permit Application (JPA)?

No

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

PCN at minimum

Are there interagency meetings (state/federal)?

Yes, MD Aquaculture Review Board

Interagency Meeting Frequency:

Monthly

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Maryland Shellfish Aquaculture Siting Tool](#)

Is a pre-application meeting required, encouraged, not specified?

Advised

Application Fees

Any pre-determination meeting fee for applicants?

No

Algae lease/permit application fee?

No

Is applicant fee returned if denied?

N/A

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

N/A

Summary of advertisement requirement of lease application by agency and/or applicant?

N/A

Who pays for advertisement?

N/A

Business/Operations Plan

Is a management or operations plan required with application?

Operations details in application

Is a business plan required with application?

N/A

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

5 years for aquaculture permit

Are renewals available?

Yes

Any renewal fee?

No information

Is there an active use requirement? Any criteria to assess?

Failure to submit report or conduct planned activities can result in revocation of permit.

Is there a production report requirement?

Yes

Frequency for providing production report?

Annually

Can a algae aquaculture lease be transferred?

N/A

Is there a bid process for leases?

N/A

Any acreage limits?

N/A

Limits per site

N/A

Limits per person

N/A

Limits on number of lease sites a person can hold

N/A

Rental and Use Fees

Annual rental fee?

N/A

Any algae aquaculture harvest surcharge? If so, what is it?

N/A

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

No information

Lease markering responsibility

No information

Biological assessment fee

No information

Property tax

No information

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

N/A

Definitions

State definition of aquaculture:

"Aquaculture" means the commercial rearing of fish or aquatic plants for sale, trade, barter, or shipment.

Per regs: Aquaculture activity is the purchase, monitoring, bottom preparation, planting, sale, possession, harvest, production, breeding, transportation, and processing of shellfish in State waters on or in an area used for shellfish cultivation.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

No information.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard; also may not be within 150 ft of a federal navigational channel or in any creek, cove, bay, or inlet less than 300 ft wide at its mouth at mean low tide.

Historic resources

Standard

Migratory Fish

Standard

Shellfish density threshold

May not be within 150 ft of the public shellfish fishery or a registered pound net site or within 150 ft of an oyster reserve or any Yates Bar located in an oyster sanctuary.

Submerged aquatic vegetation (SAV)

May not be In an SAV Protection Zone.

Other natural resource protection measures?

No information.

Riparian setback

May not be within a minimum of 50 ft of shoreline or any pier without the written permission of the riparian owner at the time of designation of the Aquaculture Enterprise Zone.

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

N/A

Any riparian owner notice requirement for lease applications?

N/A

Is applicant required to provide list of riparian owners to permitting agency?

N/A

Is any consent of riparian owner required? If so, under what condition?

N/A

Coastal Zone Management (CZM) Consistency Determination

N/A

Section 401 Water Quality Certification (WQC)

N/A

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[MD Wastewater Permits Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

N/A

Any algae aquaculture lease/permit holder training/exam requirement?

N/A

Are algae aquaculture leases/permits restricted to residents only?

N/A

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

N/A

Number of complete algae applications currently in review?

N/A

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

N/A

Total acreage of algae aquaculture leases. Separate by species if available.

N/A

Total # of lease holders/individuals employed (if available)?

N/A

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

N/A

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

N/A

Multitrophic Systems

Attachment to shellfish culture.

No information

Massachusetts

Summary of the Status of Algae Culture

- Finfish and seaweed do not have a good permit structure--they do not use the same framework as shellfish. Instead, they can be done via a general aquaculture application under Mass. DMF's Special Permit Application. No lease is involved.
- Note that algae is referenced once as a possible Class 4 open-water permit subject in CMR 322-15 (the same document that regulates shellfish), but agency contacts have explicitly stated they do not have a true program as shellfish do; speak with your agency about which forms are appropriate.

Tribal

Corps mandates that must notify the Board of Underwater Archaeological Resources (BUAR) and applicable tribes/Tribal Historic Preservation Officers (THPOs). [Historic Property Notification Form \(Section X\)](#) recommended to make above notifications; contact information can be found in general permit.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information

Local municipality website for algae aquaculture leasing/permitting:

No information

Local municipality application for algae aquaculture leasing/permitting:

No information

State Government

State lead agency for algae aquaculture leasing/permitting:

Department of Fish and Game, Division of Marine Fisheries (DMF) reviews Special Project permit application for aquaculture.

State agency contact(s) for algae aquaculture leasing/permitting:

Chrissy Petitpas, christian.petitpas@mass.gov, 508-742-9766

State agency website(s) for aquaculture leasing/permitting:

[Division of Commercial Fisheries Special Permits](#)

State algae aquaculture leasing/permitting law(s):

- M.G.L Chapter 130
- [M.G.L. Title XIX, Chapter 130, Sec. 17B](#)
- [M.G.L. Title XIX, Chapter 130, Sec. 83](#)
- Note bill in progress: [An Act Relative to a Marine Special Activity License Program](#)

State algae aquaculture leasing/permitting regulation(s):

- [Title 322 CMR](#)
- [Special Project Permit \(322-7.01\(4\)\(c\)\)](#)
- Aquaculture regulations (shellfish-centric, but reference algae; may provide good guidance for what to include in operations plans) ([322-15; Management of Marine Aquaculture](#))

State application for algae leasing/permitting:

[Special License Application](#)

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for algae aquaculture permitting:

Christine Jacek, christine.m.jacek@usace.army.mil, 978-318-8026

Corps website for algae aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for algae aquaculture:

[Massachusetts General Permit](#) Activity 22

NWP 55 suspended in New England (4/13/2021).

Corps permit expiration:

5-Apr-23

Corps application for algae aquaculture permitting:

PCN using ENG Form 4345: See Section VI of general permit for additional information that must be provided. Email application to cenae-r@usace.army.mil or to assigned project manager.

Is there a State/Federal Joint Permit Application (JPA)?

State forms **cannot** be substituted for Form 4345 but may be used supplementally.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes, PCN is the minimum for kelp/finfish aquaculture.

Are there interagency meetings (state/federal)?

Yes

Interagency Meeting Frequency:

Yes, 1st and 3rd Thursdays (local municipalities do not attend).

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

Below links meant for shellfish aquaculture siting, but may help with eelgrass beds, etc.

[MA-ShellFAST Viewer](#)

From mass.gov (may not be supported for much longer due to move to AGOL):

[OLIVER](#)

[MORIS](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Algae lease/permit application fee?

\$10 for residents, \$20 for non-residents

Is applicant fee returned if denied?

No information

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information

Summary of advertisement requirement of lease application by agency and/or applicant?

No information

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

Yes, detailed operations plan required for application

Is a business plan required with application?

Provided supply source any other detailed information relevant to application

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

No information

Are renewals available?

No information

Any renewal fee?

No information

Is there an active use requirement? Any criteria to assess?

No information

Is there a production report requirement?

Yes

Frequency for providing production report?

Annual activities report

Can an algae aquaculture lease be transferred?

No information

Is there a bid process for leases?

No information

Any acreage limits?

No information

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

No information

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

Additional fees if Chapter 91 waterways authorization required, if Wetlands Protection Act filings (NOI) required, or for MESA filings.

Land surveyor/hydrographic survey

No information

Lease markering responsibility

No information

Biological assessment fee

No information

Property tax

No information

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

- [National Seaweed Hub](#)

Definitions

State definition of aquaculture:

Farming of aquatic marine organisms including, but not limited to fish, mollusks, crustaceans, echinoderms and plants. Farming implies some sort of intervention in the rearing process to enhance production including, but not limited to controlled propagation, feeding, protection from predators, etc.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Any special conditions are assessed on a site and project-specific basis.

Protected Resources and Critical Habitat Designations

Variable; speak with your agency. May need to make adjustments to gear/longlines for protection of right whales/sea turtles. May need to submit bird deterrence plan to DMF.

Operations in Priority Habitats require MESA Review Filing.

Essential Fish Habitat (EFH)

The need for any special conditions is assessed on a site and project-specific basis.

Navigation

No unreasonable interference with navigation. If future U.S. operations require the removal, relocation, or other alteration of the structure or work, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, to remove, relocate, or alter the structural work or obstructions without expense to the U.S.

Historic resources

Historic Property Notification Form found on MA General Permit for notification of BUAR and THPOs.

Migratory Fish

The need for any special conditions is assessed on a site and project-specific basis

Shellfish density threshold

No information

Submerged aquatic vegetation (SAV)

Variable, but note that state will not certify shellfish operations if <25 ft from eelgrass.

Other natural resource protection measures?

The need for any special conditions associated resource protection is assessed on a site and project-specific basis.

Riparian setback

No information

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information

Any riparian owner notice requirement for lease applications?

No information

Is applicant required to provide list of riparian owners to permitting agency?

No information

Is any consent of riparian owner required? If so, under what condition?

No information

Coastal Zone Management (CZM) Consistency Determination

Individual application review required (Corps coordinates for PCNs).

Section 401 Water Quality Certification (WQC)

[Activity covered by state GP approved](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

If applicable discharge, need NPDES-issued permit:

[Mass. NPDES Forms](#)

Note applicable general permits (submit NOI)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- Talk with your permitting agency about what licenses will be needed
- Possibly [Chapter 91 DEP](#) (\$330+)
- Possibly USCG PATON

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No, \$20 instead of \$10 for non-residents though

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information.

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

No information

Mississippi

Summary of the status of algae culture

- Have not had seaweed applications; provided that there is no law explicitly forbidding seaweed culture, would likely process a seaweed-oriented JPA and review on a case by case basis. Whether a lease is needed or not is left open. Familiarity with approved water areas advised.
- [Proposed changes to shellfish aquaculture regulatory structure \(2021\)](#); while the actual legislative text itself is in many cases remaining the same, changes to rules or permitting processes could occur.

Tribal

N/A

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

N/A

Local municipality website for algae aquaculture leasing/permitting:

N/A

Local municipality application for algae aquaculture leasing/permitting:

N/A

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

- Dept of Marine Resources, MS Commission on Marine Resources issues lease for shellfish operations, but Secretary of State's Office holds public lands (may be needed for non-shellfish leasing).
- Marine Fisheries Division issues aquaculture harvest permit.

State agency contact(s) for algae aquaculture leasing/permitting:

- Trevor Moncrief, trevor.moncrief@dmr.ms.gov
- Willa Brantley, Wetlands Permitting Bureau Director, willa.brantley@dmr.ms.gov, 228-523-4108

State agency website(s) for aquaculture leasing/permitting:

- [DMR Finfish Bureau](#)
- [Public Lands](#)

State algae aquaculture leasing/permitting law(s):

- [Mississippi Aquaculture Act of 1988](#) (79-22)
- Also see Title 49, Chapter 15
- [Authority to lease submerged lands](#) (29-1-107)

State algae aquaculture leasing/permitting regulation(s):

- [22-13, Rules and Regulations for Aquaculture in the Marine Environment in the State of Mississippi](#)
- [Mississippi Title 22 Regulations](#)
- [Department of Agriculture Chapter 11, Guidelines for Aquaculture Activities](#)

State application for algae leasing/permitting:

[JPA](#)

U.S. Army Corps of Engineers

Corps District(s):

Mobile and Vicksburg Districts

Corps contact(s) for algae aquaculture permitting:

- Vicksburg District: Jennifer Mallar, 601-631-7071
- Mobile District: Don Mroczko, donald.e.mroczko@usace.army.mil, 251-690-3185

Corps website for algae aquaculture permitting:

- [Mobile Nationwide Permits](#)
- [Vicksburg Nationwide Permit](#)

Corps permit for algae aquaculture:

NWP 55 Regional conditions:

- [Vicksburg](#)
- [Mobile](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

[JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [JPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Minimum PCN, but JPA serves as PCN in coastal counties.

Are there interagency meetings (state/federal)

Yes, it is part of the JPA process.

Interagency Meeting Frequency:

No information

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No. Some very simple (and somewhat outdated) maps on [DMR website](#). Call listed numbers for more info.

Is a pre-application meeting required, encouraged, not specified?

Encouraged (necessary given unusual state of seaweed).

Application Fees

Any pre-determination meeting fee for applicants?

No information

Algae lease/permit application fee?

\$500 commercial application fee for JPA

Is applicant fee returned if denied?

No information

Corps Individual Permit fee

JPA includes both MDMR and USACE fee.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information

Summary of advertisement requirement of lease application by agency and/or applicant?

Public notice requirement.

Who pays for advertisement?

MMDR (though JPA may ask applicant to pay public notice fee).

Business/Operations Plan

Is a management or operations plan required with application?

Applications shall include a statement to demonstrate applicant's capability to conduct proposed activity.

Is a business plan required with application?

Yes

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

Case-by-case, as leasing process is not established for non-shellfish. Speak with agency.

Are renewals available?

No information

Any renewal fee?

No information

Is there an active use requirement? Any criteria to assess?

No information

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can an algae aquaculture lease be transferred?

No information

Is there a bid process for leases?

No information

Any acreage limits?

YNo information es

Limits per site

No information .

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

Case-by-case, as leasing process is not established for non-shellfish. Speak with agency.

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

If requested in permit process, applicant submits with land survey by an approved surveyor along with application.

Lease markering responsibility

Applicant

Biological assessment fee

No information

Property tax

No information

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

Any form of agriculture that includes the process of growing, farming, cultivating, and/or harvesting cultured aquatic products in marine or freshwaters and includes management by an aquaculturist.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Note that for shellfish operations (may have applicability): State regulation requires applicant to conduct pre-environmental assessment survey.

Protected Resources and Critical Habitat Designations

May not cause substantial negative impacts to habitats of special significance (e.g. ESA spp., public oyster reefs, nesting bird areas, sea turtle nesting areas.) Note that for shellfish operations (may have applicability): No leases within 1 mile of these habitats.

Essential Fish Habitat (EFH)

Standard

Navigation

Note that for shellfish operations (may have applicability): Must be > 0.5 mile away from centerline of FNC.

Historic resources

Standard

Migratory Fish

No information

Shellfish density threshold

Note that for shellfish operations (may have applicability): Areas defined as tonging reefs or natural reefs may not be leased.

Submerged aquatic vegetation (SAV)

Standard (can't cause substantial negative impact).

Other natural resource protection measures?

Non-lethal predator control, and predator control plan must be approved.

Riparian setback

No information

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

- [MS Code § 49-15-9](#)
- 750 yards from shore or equidistance if shore to shore is <1,500 yards.

Any riparian owner notice requirement for lease applications?

JPA requires applicant to submit list of names and addresses with application. Adjacent property owners (those whose visual access to Coastal Wetlands could be reasonably expected to be impacted by the project) are notified by the State of the application.

Is applicant required to provide list of riparian owners to permitting agency?

Yes, see above.

Is any consent of riparian owner required? If so, under what condition?

Yes

Coastal Zone Management (CZM) Consistency Determination

- [Only granted outside of specific wetland areas](#)
- If in an area for which not granted, submit proposed project info directly to MDMR using JPA and include CZMA consistency determination.

Section 401 Water Quality Certification (WQC)

[Granted with conditions](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Mississippi NPDES Permits](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- [Aquaculture harvest permit](#)
- USCG PATON

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish aquaculture

No information

New Hampshire

Summary of the Status of Algae Culture

- Uses the same permitting rules and regulations as shellfish. Only product in cages/floats is protected.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for algae aquaculture leasing/permitting:

No information.

Local municipality application for algae aquaculture leasing/permitting:

No information.

State Government

State lead agency for algae aquaculture leasing/permitting:

Department of Fish and Game

State agency contact(s) for algae aquaculture leasing/permitting:

Robert Atwood, robert.atwood@wildlife.nh.gov, 603-868-1095

State agency website(s) for aquaculture leasing/permitting:

[Fish and Game: Marine Resources](#)

State algae aquaculture leasing/permitting law(s):

[Title XVIII, Section 211:62-e, Aquaculture](#)

State algae aquaculture leasing/permitting regulation(s):

[Chapter Fis 800 \(The Importation, Possession, and Use of all Wildlife\), Section 807](#)

State application for algae leasing/permitting:

Each applicant for a marine aquaculture license under RSA 211:62-e shall make an application as described in [Fis 807.07\(b\)](#) in writing to the executive director.

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for algae aquaculture permitting:

Richard Kristoff, richard.c.kristoff@usace.army.mil

Corps website for algae aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for algae aquaculture:

[New Hampshire General Permit](#) Activity 16:

NWP 55 suspended in New England (4/13/2021).

Corps permit expiration:

18-Aug-22

Corps application for algae aquaculture permitting:

- Use F&G app for PGP. Details in [GP](#)
- Also submit [historical form](#)

Is there a State/Federal Joint Permit Application (JPA)?

Applicants use NH F&G application for activities which fall under the PGP, send to NHDES Wetlands Bureau.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

SVNF. Corps reviews projects according to State of NH classifications of minimal, minor and major impact projects. See permit for further details. Corps may elevate to PCN if believed appropriate.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

PCN required. Includes vertical-drop longlines for seaweed. Corps reviews projects according to State of NH classifications of minimal, minor and major impact projects. Any work not eligible for SV/Minimum.

Is a Pre-Construction Notification (PCN) required?

Yes for Minor/Major Impact, may be subject to Corps' discretion for Minimal Impact.

Are there interagency meetings (state/federal)?

Yearly meetings among state agencies to discuss Vibrio concerns/importation of shellfish seed (F&G, DES, HHS).

Interagency Meeting Frequency:

Annually

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

Application procedure outline in [Eis 807.07](#)

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

Can meet with staff to discuss areas of interest (they can coordinate with other agencies to identify if the area has concerns).

Is a pre-application meeting required, encouraged, not specified?

Encouraged

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Algae lease/permit application fee?

\$200

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No public scoping but public hearing required.

Summary of advertisement requirement of lease application by agency and/or applicant?

Agency pays for public hearing. Applicant responsible for sending notice of hearing to abutters and littoral owners and notice of hearing and application to other state and federal agencies.

Who pays for advertisement?

Agency (hearing, newspaper) and applicant (notice to landowners, other agencies).

Business/Operations Plan

Is a management or operations plan required with application?

Describe methodology in application.

Is a business plan required with application?

N/A

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

45 days to a couple of months depending on area.

Lease Term and Conditions

Maximum term limit for lease?

1 to 5-year license, no leases

Are renewals available?

Yes

Any renewal fee?

\$100 in addition to annual rental fee applies.

Is there an active use requirement? Any criteria to assess?

No

Is there a production report requirement?

Yes.

Frequency for providing production report?

By the 10th of each month with an additional annual report by Jan. 31.

Can an algae aquaculture lease be transferred?

Yes.

Is there a bid process for leases?

No.

Any acreage limits?

No (4.5 acres for bottom sites inland of General Sullivan Bridge)

Limits per site

No limits

Limits per person

No limits

Limits on number of lease sites a person can hold

No limits

Rental and Use Fees

Annual rental fee?

Not a true rental, but annual license fee required: \$500 per acre for suspended culture

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No

Land surveyor/hydrographic survey

Agency conducts site evaluation.

Lease markering responsibility

Applicant

Biological assessment fee

N/A

Property tax

No

Present shellfish value assessment on proposed lease site?

No, site would be denied if shellfish bed(s) were present.

Additional Information Sources

Other websites of interest:

- [NH Nature Conservancy SOAR program](#)
- [National Seaweed Hub](#)

Definitions

State definition of aquaculture:

"Aquaculture" means the propagation and rearing of aquatic species and marine species and includes the planting, promoting of growth, harvesting and transporting of these species in, on, or from the waters of this state, or the operation of a fishing preserve.

Any alternative names of a 'lease'?

Does not assign property 'right.' Issues a license. Gear is protected by law, but marine space is a public resource.

Special Natural Resource and Social Permit Conditions**Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?**

License may be revoked if conditions not followed or executive director believes license is against public interest.

Protected Resources and Critical Habitat Designations

Standard (see NH GP)

Essential Fish Habitat (EFH)

Standard (see NH GP)

Navigation

No unreasonable interference with navigation. Any structure or work that extends closer to the horizontal limits of a FNP than a distance 3x the authorized depth shall be subject to removal at the owner's expense prior to any Corps dredging or performance of any hydrographic surveys.

Historic resources

Historic resources [review request form](#) available.

Migratory Fish

Water column projects blocking >25% of a critical migratory fish route do not qualify for PGP.

Shellfish density threshold

Projects proposing to fill or dredge in a delineated shellfish bed do not qualify for PGP.

Submerged aquatic vegetation (SAV)

Standard; No bottom culture shall be allowed where eelgrass (*Zostera marina*) occurs in contiguous beds of 1/20 of an acre. All such eelgrass must be separated from any bottom culture operation by a 10 meter buffer zone.

Other natural resource protection measures?

State guidelines: No bottom culture should be allowed where high density benthic invertebrates exist that are important food sources for commercially or recreationally valuable finfish. Examples of such concentrations are provided. No bottom culture should be allowed in areas shown to be important for spawning of commercially or recreationally valuable species. An example of this would be an area where rainbow smelt deposit their eggs.

Riparian setback

No information.

Social capacity

N/A

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

- Abutter: any person whose property adjoins or is directly across a right of way from the site.
- Littoral owner: a shore front property owner who owns to the high water mark or other public/private boundary and whose property boundaries abut the site.

Any riparian owner notice requirement for lease applications?

Applicant shall send written notice to abutters and littoral owners at least 21 days prior to agency hearing.

Is applicant required to provide list of riparian owners to permitting agency?

Yes, all abutters and littoral owners.

Is any consent of riparian owner required? If so, under what condition?

Application requires a written statement that the applicant either owns or has written permission from the owner(s) to exercise any littoral right, necessary to carry out the proposed project.

Coastal Zone Management (CZM) Consistency Determination

No information

Section 401 Water Quality Certification (WQC)

[Activities covered by state GP approved](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

If there is going to be a point discharge of pollution to waters of the U.S.: NPDES Permit Application Forms 1 and 2B. If a relevant General Permit is in effect, a Notice of Intent (NOI) form should be used.

[EPA NPDES Forms](#)

For more info (and to see if you need an NPDES permit), see [state contacts](#).

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- See information in leasing section above. Annual license: \$250 for on bottom culture, \$500 for suspended culture.
- USCG PATON/coordination with CG

Any algae aquaculture lease/permit holder training/exam requirement?

No.

Are algae aquaculture leases/permits restricted to residents only?

No.

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

<5

Number of complete algae applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

No information

New Jersey

Summary of the status of algae culture

There is no outright prohibition on finfish or seaweed culture in state waters. To permit these (for native species), complete two processes in conjunction with one another:

1. Get a Waterfront Development Individual Permit for the gear, the fish/seaweed, or anything else occupying the physical space. This involves a lengthier public notification process than shellfish leasing does.
2. Get a tidelands instrument of some kind for your designated space (this is different than a shellfish lease and is more comparable to the tidelands license used for shellfish). This involves upland owner notification and discussion with resource council/public meetings.

USACE and other agencies (such as fisheries administration in DEP) will assess species, check the natural resources, review stocks, etc. to approve permitting.

Fees, acreage, and similar specifics are subject to case-by-case discretion. New Jersey Coastal Management Program is interested in exploring possibility for finfish & seaweed aquaculture.

Tribal

N/A

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

N/A

Local municipality website for algae aquaculture leasing/permitting:

N/A

Local municipality application for algae aquaculture leasing/permitting:

N/A

State Government

State lead agency for algae aquaculture leasing/permitting:

- Department of Agriculture, Office of Aquaculture Coordination handles.
- Permits and/or a Tidelands License may also be required from the NJDEP's Division of Land Resource Protection.
- DEP's fisheries administration may assist in review.

State agency contact(s) for algae aquaculture leasing/permitting:

- Amanda Wenczel, amanda.wenczel@ag.state.nj.us, 609-984-2502

State agency website(s) for aquaculture leasing/permitting:

- [Office of Aquaculture Coordination](#)
- [Division of Lands Resource Protection](#)

State algae aquaculture leasing/permitting law(s):

- NJAA 4:27, sections 1-24; New Jersey Aquaculture Development Act
- [Department of State, Statutes and Rules](#)

State algae aquaculture leasing/permitting regulation(s):

- [NJAC 2:89](#), Aquaculture Development

- [Department of State, Statutes and Rules](#)

State application for algae leasing/permitting:

Aquatic Farmer License described in Appendix A of NJAC 2:89

U.S. Army Corps of Engineers

Corps District(s):

New York and Philadelphia

Corps contact(s) for algae aquaculture permitting:

- NY: 917-790-8007
- [Philadelphia District Contacts](#)

Corps website for algae aquaculture permitting:

- [NY Nationwide Permits](#)
- [Philadelphia Nationwide Permits](#)

Corps permit for algae aquaculture:

Both Districts use NWP 55 with regional conditions:

- [NY Nationwide Permits](#)
- [Philadelphia Nationwide Permits](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

- [NY District Forms](#)
- [Philadelphia District Forms](#)

Is there a State/Federal Joint Permit Application (JPA)?

No. Corps and DEP don't coordinate review of applications.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes, PCN at minimum.

Are there interagency meetings (state/federal)?

State and Federal agencies meet on a case by case basis for joint permit planning meetings, but the applicant sends information directly to Corps separately from the State permitting process.

Interagency Meeting Frequency:

N/A

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

Old guidebook with some mention of seaweed and freshwater fish: [Guide to Developing Aquaculture in New Jersey \(2003\)](#)

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

DEP is working with Rutgers University on a project to develop a GIS-based commercial aquaculture siting tool.

Is a pre-application meeting required, encouraged, not specified?

Highly encouraged.

Application Fees

Any pre-determination meeting fee for applicants?

No

Algae lease/permit application fee?

Waterfront Individual Development permit fee may not exceed \$30,000; \$3,000/acre impacted for waterward projects.

Is applicant fee returned if denied?

No information

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information

Summary of advertisement requirement of lease application by agency and/or applicant?

Significant public advertisement requirements

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

Yes

Is a business plan required with application?

No information

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

No information

Are renewals available?

Yes

Any renewal fee?

No information

Is there an active use requirement? Any criteria to assess?

No information

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can a algae aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No information

Any acreage limits?

Subject to agency discretion

Limits per site

See above

Limits per person

See above

Limits on number of lease sites a person can hold

See above

Rental and Use Fees

Annual rental fee?

Subject to agency discretion

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

Property survey required for Tidelands Instruments

Lease markering responsibility

No information

Biological assessment fee

No information

Property tax

No information

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

- [Aquaculture RMPs](#) from Rutgers
- [National Seaweed Hub](#)
- [New Jersey Coastal Management Program Section 309 Assessment and Strategy 2021-2025](#)

Definitions

State definition of aquaculture:

The propagation, rearing, and subsequent harvesting of aquatic organisms in controlled or selected environments, and the subsequent processing, packaging and marketing, and shall include, but need not be limited to, activities to intervene in the rearing process to increase production such as stocking, feeding, transplanting and providing for protection from predators. "Aquaculture" shall not include the construction of facilities and appurtenant structures that might otherwise be regulated pursuant to any State or federal law or regulation (Statute 4:27-3).

Any alternative names of a 'lease'?

No information

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

No information

Protected Resources and Critical Habitat Designations

No information

Essential Fish Habitat (EFH)

No information

Navigation

No information

Historic resources

No information

Migratory Fish

No information

Shellfish density threshold

No information

Submerged aquatic vegetation (SAV)

No information

Other natural resource protection measures?

No information

Riparian setback

No information

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information

Any riparian owner notice requirement for lease applications?

Yes, 6-month notification period

Is applicant required to provide list of riparian owners to permitting agency?

No information

Is any consent of riparian owner required? If so, under what condition?

Consent generally needed, but Tidelands Resource Council have the ability approve without.

Coastal Zone Management (CZM) Consistency Determination

- NY District has a [NJ Coastal Zone consistency form](#) for applicant.

Section 401 Water Quality Certification (WQC)

New Jersey denied CZMA certification and Section 401 water quality certification for all ACOE Nationwide Permits. Therefore, prior to applying for a Nationwide Permit or for the Nationwide Permit to be considered valid, the activity must be authorized under a waterfront development permit and Water Quality Certificate issued by the NJDEP. The waterfront development permit is the CZMA consistency certification and water quality certificate.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

NJPDES permit needed if point discharge; fees apply; however, check with govt., as some exemptions from this requirement exist.

[NJPDES Permit Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

Aquatic Farmer License every five years (NJAC 2:89)

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

- 1 aquatic plant
- 2 combined finfish & aquatic plant

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

No information

New York

Summary of the Status of Algae Culture

- Kelp/seaweed culture is currently in a convoluted state for New York. Commercial seaweed aquaculture is currently not permitted in New York coastal waters. However, certain lease or access programs in Long Island towns are able to amend existing shellfish permits to include seaweed.
- Note that a "[Kelp Bill](#)" is currently under review in New York that would allow kelp cultivation in Gardiner's and Peconic Bays.

Tribal

N/A

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Long Island towns may allow users to amend their existing shellfish permits to include permission to cultivate seaweed/kelp. Variable throughout the state.

Local municipality website for algae aquaculture leasing/permitting:

No information

Local municipality application for algae aquaculture leasing/permitting:

No information

State Government

State lead agency for algae aquaculture leasing/permitting:

Department of Environmental Conservation, Division of Marine Resources (NYSDEC)

State agency contact(s) for algae aquaculture leasing/permitting:

- Jennifer O'Dwyer, jennifer.odwyer@dec.ny.gov, 631-444-0489

State agency website(s) for aquaculture leasing/permitting:

[NYSDEC: Aquaculture Permits](#)

State algae aquaculture leasing/permitting law(s):

- [ENV Article 13, Title 3 \(Marine Fisheries\)](#)
- [New York Statutes](#)

State algae aquaculture leasing/permitting regulation(s):

- [6 CRR-NY I F 48: Marine Hatcheries, On-Bottom and Off-Bottom Culture of Marine Plant and Animal Life](#)

State application for algae leasing/permitting:

- Kelp is not currently permitted in New York. However, NYDEC's On/Off-Bottom Culture Permit (below) is open to marine plant life and [has been cited](#) as the permitting application for kelp. It may be required by Long Island towns allowing the use of kelp on shellfish leases or in experimental operations.
- [On/Off-Bottom Culture Permit](#)
- [Corps JPA](#)

U.S. Army Corps of Engineers

Corps District(s):

New York

Corps contact(s) for algae aquaculture permitting:

cenan-r-permit-app@usace.army.mil, 917-790-8511

Corps website for algae aquaculture permitting:

[NY Nationwide Permits](#)

Corps permit for algae aquaculture:

- Kelp/seaweed culture is not currently permitted in NY except in select cases (see notes). However, New York does have existing regional conditions for seaweed mariculture under NWP 55 in the event that permitting is allowed or a shellfish lease is expanded to include seaweed culture (see notes).
- [NWP 55](#)
- [Regional Conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

See "[Joint Application for Permit](#)"

Is there a State/Federal Joint Permit Application (JPA)?

Yes, see "[Joint Application for Permit](#)"

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes

Are there interagency meetings (state/federal)?

State & County/Town Meetings.

Interagency Meeting Frequency:

1-2 times annually.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

- State/Corps [lease application instruction form](#)

Process flowchart available?

In prep for state

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

While a [siting tool](#) exists, it does not cover seaweed sites in New York because they are not permitted by the state.

Is a pre-application meeting required, encouraged, not specified?

N/A

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Algae lease/permit application fee?

Kelp/seaweed culture is not currently permitted in NY except in select cases (see notes); the general Off-Bottom/On-Bottom Aquaculture permit costs \$100 for other scenarios.

Is applicant fee returned if denied?

N/A

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

N/A

Summary of advertisement requirement of lease application by agency and/or applicant?

N/A

Who pays for advertisement?

N/A

Business/Operations Plan

Is a management or operations plan required with application?

Kelp/seaweed culture is not currently permitted in NY except in select cases (see notes); the general Off-Bottom/On-Bottom Aquaculture requires a cultivation/operations plan.

Is a business plan required with application?

N/A

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

N/A

Lease Term and Conditions

Maximum term limit for lease?

N/A

Are renewals available?

N/A

Any renewal fee?

N/A

Is there an active use requirement? Any criteria to assess?

N/A

Is there a production report requirement?

N/A

Frequency for providing production report?

N/A

Can a algae aquaculture lease be transferred?

N/A

Is there a bid process for leases?

N/A

Any acreage limits?

N/A

Limits per site

N/A

Limits per person

N/A

Limits on number of lease sites a person can hold

N/A

Rental and Use Fees

Annual rental fee?

N/A

Any algae aquaculture harvest surcharge? If so, what is it?

N/A

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

N/A

Land surveyor/hydrographic survey

N/A

Lease markering responsibility

N/A

Biological assessment fee

N/A

Property tax

N/A

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources

Other websites of interest:

N/A

Definitions

State definition of aquaculture:

Culture or cultivation means the controlled or partially controlled raising, breeding, growing, planting and containment of marine plant or animal life in any marine hatchery or through on-bottom or off-bottom culture.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

N/A

Protected Resources and Critical Habitat Designations

N/A

Essential Fish Habitat (EFH)

N/A

Navigation

N/A

Historic resources

N/A

Migratory Fish

N/A

Shellfish density threshold

N/A

Submerged aquatic vegetation (SAV)

N/A

Other natural resource protection measures?

N/A

Riparian setback

N/A

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

N/A

Any riparian owner notice requirement for lease applications?

N/A

Is applicant required to provide list of riparian owners to permitting agency?

N/A

Is any consent of riparian owner required? If so, under what condition?

N/A

Coastal Zone Management (CZM) Consistency Determination

N/A

Section 401 Water Quality Certification (WQC)

No information

Section 402/403 Pollution Control

N/A

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

N/A

Any algae aquaculture lease/permit holder training/exam requirement?

N/A

Are algae aquaculture leases/permits restricted to residents only?

N/A

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

As of now, this is the only potential method of seaweed farming, and it is not universally permitted; check with relevant Long Island town to see if they will allow seaweed/kelp to be farmed on shellfish leases.

North Carolina

Summary of the Status of Algae Culture

Potentially could create a non-shellfish farm on a case-by-case basis, subject to discussion. Finfish and seaweed culture have not been conducted in North Carolina yet. In 2017, a law was passed that included non-shellfish leases, but it did not give authority to develop rules, so no implementation rules have been put down. While agencies have begun planning for finfish, because it hasn't been done, nothing concrete can be set up between the several agencies involved until somebody applies. However, again note that formal regulations have not been promulgated, so these may be subject to change.

The 2017 law did not amend original shellfish lease rules, so cannot grow shellfish and any other species on the same lease.

Tribal

No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights. Any work on Eastern Band of Cherokee Indians trust land must comply with MOU between Corps and EBCI. May need a Tribal Approval Letter.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information

Local municipality website for algae aquaculture leasing/permitting:

No information

Local municipality application for algae aquaculture leasing/permitting:

No information

State Government

State lead agency for algae aquaculture leasing/permitting:

Department of Environmental Quality, Marine Fisheries Division, Habitat and Enhancement Section

State agency contact(s) for algae aquaculture leasing/permitting:

Jacob Boyd, jacob.boyd@ncdenr.gov, 252-808-8046

State agency website(s) for aquaculture leasing/permitting:

[NCDEQ Shellfish Lease and Franchise](#)

State algae aquaculture leasing/permitting law(s):

[Chapter 113, Article 16A \(Marine Aquaculture\)](#)

State algae aquaculture leasing/permitting regulation(s):

No information

State application for algae leasing/permitting:

No information

U.S. Army Corps of Engineers

Corps District(s):

Wilmington

Corps contact(s) for algae aquaculture permitting:

910-251-4625

Corps website for algae aquaculture permitting:

[Wilmington Corps Permits](#)

Corps permit for algae aquaculture:

NWP 55 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

PCN Form ENG 6082 or [PCN e-version](#) (preferred)

Is there a State/Federal Joint Permit Application (JPA)?

No

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes

Are there interagency meetings (state/federal)?

No information

Interagency Meeting Frequency:

No information

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No information

Process flowchart available?

No information

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

A [shellfish siting tool](#) that may still be useful

Is a pre-application meeting required, encouraged, not specified?

No information

Application Fees

Any pre-determination meeting fee for applicants?

No information

Algae lease/permit application fee?

\$200

Is applicant fee returned if denied?

No information

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing required

Summary of advertisement requirement of lease application by agency and/or applicant?

Two notices of intention published in newspaper, with first at least 20 days before hearing and second 7-11 days after the first.

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

No information

Is a business plan required with application?

No information

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

20 years

Are renewals available?

Yes.

Any renewal fee?

\$100

Is there an active use requirement? Any criteria to assess?

Lease can be revoked if it is not utilized on a continuing basis for marine aquaculture purposes.

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can an algae aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No

Any acreage limits?

Yes

Limits per site

100 acres

Limits per person

1,500 acres

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

\$210/acre/year

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

Applicant must provide map of area to be leased subject to standards.

Lease markering responsibility

Applicant

Biological assessment fee

No information

Property tax

Note that leases treated as real property

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

Marine aquaculture. The propagation and rearing of marine aquatic species in controlled or selected environments, including, but not limited to, ocean ranching, marine hatcheries, and other deep water fish farming operations in the coastal fishing waters of the State and, to the extent not inconsistent with federal law, to the limits of the United States exclusive economic zone, as that term is defined in the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1801, et seq.

Any alternative names of a 'lease'?

No information

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Cannot be sited within 20 ft of a wetlands area unless approved by Corps. Leases will not unreasonably interfere with lawful utilization by the public of other marine/estuarine resources (including but not limited to navigation, fishing, and recreation). See Article 16A for full conditions.

Protected Resources and Critical Habitat Designations

Standard Corps requirements at minimum

Essential Fish Habitat (EFH)

Standard Corps requirements at minimum

Navigation

Standard (cannot block marked/unmarked channels, if need for removal must cover expense, etc.)

Historic resources

Standard Corps requirements at minimum

Migratory Fish

Standard Corps requirements at minimum

Shellfish density threshold

Must not contain a natural commercially significant shellfish bed or be within an area designated for inclusion in the Department's Shellfish Management Program.

Submerged aquatic vegetation (SAV)

Standard Corps requirements at minimum

Other natural resource protection measures?

Cannot be sited within 20 ft of a wetlands area unless approved by Corps.

Riparian setback

May not unreasonably interfere on rights of riparian or adjacent property owners, including access to navigation channels from piers or other means.

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

Defined for shellfish leasing: (Statute: 113-201.1) The holder(s) of the fee title to land that is bordered by waters of an arm of the sea or any other navigable body of water.

Any riparian owner notice requirement for lease applications?

No information

Is applicant required to provide list of riparian owners to permitting agency?

On Corps IPs at minimum

Is any consent of riparian owner required? If so, under what condition?

No information

Coastal Zone Management (CZM) Consistency Determination

[NC Division of Coastal Management concurrence letter](#) granting CZM consistency for all 2021 NWP's.

Section 401 Water Quality Certification (WQC)

No information

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[NC NPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

No information

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

Multi-species culture is not allowed on shellfish leases (law was not amended when statute allowing non-shellfish culture was added).

Northern Mariana Islands (CNMI)***Special Notes***

- All aquaculture, mariculture and silviculture that have the potential to directly and significantly impact coastal resources are processed through the DCRM Saipan office as Major Sitings projects, regulations and definitions pertaining to the application and permit process can be found at Admin Code (cnmilaw.org), Title 15, Chapter 15-10. of the Coastal Resources Management Regulations, Part 500 § 15-10-501 and § 15-10-020. While information is provided for Major Siting Projects, aquaculture with few to no impacts may instead be categorized as Use Priorities. Speak to DCRM about the scale of your project.
- May need legislature's approval for submerged land matters (Title 2, Division 1, Sec. 1223); speak with DNR before starting your project.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Zoning Permit required in Saipan by the Commonwealth Zoning Board; zoning needed in Saipan before Major Siting Permit done.

Local municipality website for algae aquaculture leasing/permitting:

[Commonwealth Zoning Board](#)

Local municipality application for algae aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for algae aquaculture leasing/permitting:

- Bureau of Environmental and Coastal Quality, Division of Coastal Resource Management handles Major Siting Permit.
- Department of Natural Resources, Division of Fish and Wildlife, handles submerged lands leasing.

State agency contact(s) for algae aquaculture leasing/permitting:

- BECQ-DCRM: Sam Sablan, ssablan@dcrm.gov.mp, 670-664-8301
- For submerged land lease for aquaculture, apply to: Division of Fish and Wildlife Department of Natural Resources Lower Base, Tanapag Saipan, MP 96950

State agency website(s) for aquaculture leasing/permitting:

No information.

State algae aquaculture leasing/permitting law(s):

- [Commonwealth Code](#)
- Title 2 (Natural Resources), Division 1 (Maritime and Coastal Resources): [2 CMC 1, § 1201](#)

State algae aquaculture leasing/permitting regulation(s):

- [145-60-505: Aquaculture](#)
- [Major Siting Permit Guide](#), pg. 14
- [Chapter 15-10: Coastal Resource Management Rules and Regulations](#)

State application for algae leasing/permitting:

For submerged land lease for aquaculture, apply to:
Division of Fish and Wildlife Department of Natural Resources Lower Base
Tanapag Saipan, MP 96950

U.S. Army Corps of Engineers

Corps District(s):

Honolulu

Corps contact(s) for algae aquaculture permitting:

808-835-4303

Corps website for algae aquaculture permitting:

[Honolulu Nationwide Permits](#)

Corps permit for algae aquaculture:

NWP 55; [Regional conditions](#) (no special conditions)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

PCN. Can use [form ENG 6082](#).

Is there a State/Federal Joint Permit Application (JPA)?

N/A

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

PCN at minimum.

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

[Know your CRM: Major Siting Permit](#)

Process flowchart available?

A number of flow charts and diagrams on the Major Siting Permit scattered through guide (pg. 9, 17, 49, 55) on various aspects of the process.

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Maps for public permitting and areas of particular concern](#)

Is a pre-application meeting required, encouraged, not specified?

Required by DCRM (encouraged by Corps).

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Algae lease/permit application fee?

- Leases: [Chapter 145-60-401](#); minimum \$25, but rises with price
- Major Siting Permit: \$200 to \$2,000 based on construction costs; fee can be reduced if environmental BMPs incorporated

Is applicant fee returned if denied?

No information.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing required for both lease and for Major Siting Projects.

Summary of advertisement requirement of lease application by agency and/or applicant?

- Lease: Department schedules public meeting and notifies via a local newspaper 2+ weeks before the meeting.
- Major Siting: 2 public notice periods.

Who pays for advertisement?

Department

Business/Operations Plan

Is a management or operations plan required with application?

Yes, extensive project description needed.

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

25 years.

Are renewals available?

Yes, can renew or can also extend conveyance by up to 15 years during last 5 years of term.

Any renewal fee?

No information.

Is there an active use requirement? Any criteria to assess?

Lease can be terminated if contractual obligations are not being complied with and corrective action is not taken.

Is there a production report requirement?

No information.

Frequency for providing production report?

No information.

Can an algae aquaculture lease be transferred?

Lease can be transferred with a fee.

Is there a bid process for leases?

No

Any acreage limits?

Note: If will take up <500 square ft, may be able to get a Use Permit (statute 145-60-205) instead of a lease.

Limits per site

No information.

Limits per person

No information.

Limits on number of lease sites a person can hold

No information.

Rental and Use Fees

Annual rental fee?

Determined by multiplying area in square ft by current square foot rental rate (adjusted for Consumer Price Index). Minimum rate is \$1200/yr (rent is paid annually unless minimum is used, in which case paid in 5 year increments).

Any algae aquaculture harvest surcharge? If so, what is it?

No information.

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information.

Land surveyor/hydrographic survey

No information.

Lease markering responsibility

No information.

Biological assessment fee

Applicant

Property tax

No information.

Present shellfish value assessment on proposed lease site?

No information.

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

Aquaculture is the culture or farming of food fish, shellfish, or other aquatic plants and animals. (Reg. 145-60-505)

Any alternative names of a 'lease'?

No information.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

Aquaculture is a preferred, water-dependent use. Water surface, column, and bedland areas suitable for aquaculture are limited to certain sites. These sites are subject to pressures from competing uses and degradation of water quality. A special effort should be made through the CRM program to identify and resolve resource use conflicts and resource management issues in regard to use of identified sites.

Protected Resources and Critical Habitat Designations

Standard, including considering cumulative impacts on wildlife.

Essential Fish Habitat (EFH)

Standard, including considering cumulative impacts on wildlife.

Navigation

Should be located in areas where the navigational access of upland owners, recreational boaters, and commercial traffic is not significantly restricted.

Historic resources

Must consult with archeologists to identify areas containing potentially valuable archaeological data and coordinate with CNMI Historical Preservation Office; where possible, preserve such sites for scientific study.

Migratory Fish

Standard, including considering cumulative impacts on wildlife.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

Standard (must preserve).

Other natural resource protection measures?

- Non-polluting aquaculture permitted in lagoon and reef Areas of Particular Concern.
- EIA submitted to DCRM as part of Major Siting Permit process.
- May need legislature's approval for submerged land matters; speak with DNR before starting your project. See [Title 2, Division 1, Sec. 1223](#) for information on leases needing to be approved by [law](#).

Riparian setback

No information.

Social capacity

Recognition should be given to the possible detrimental impact aquacultural development might have on the visual access of upland owners and on the general aesthetic quality of the shoreline area.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Yes, if not owner of adjacent upland, must get riparian consent for lease.

Is applicant required to provide list of riparian owners to permitting agency?

See above.

Is any consent of riparian owner required? If so, under what condition?

Yes, if not owner of adjacent upland, must get riparian consent for lease.

Coastal Zone Management (CZM) Consistency Determination

[Waived.](#)

Section 401 Water Quality Certification (WQC)

[Waived.](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[CNMI NPDES \(EPA\)](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- Zoning permit
- Potentially an Area of Particular Concern (APC) Permit with or instead of Major Siting Project (depending on scale and location of project)

Any algae aquaculture lease/permit holder training/exam requirement?

No information.

Are algae aquaculture leases/permits restricted to residents only?

No information.

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information.

Number of complete algae applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information.

Total acreage of algae aquaculture leases. Separate by species if available.

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture

No information.

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information.

Multitrophic Systems

Attachment to shellfish culture

No information.

Oregon

Summary of the Status of Algae Culture

- Commercial seaweed operations in waters of the state are not allowable under OAR 141-125-0110 (14). While ORS 274.885 initially allowed for lease of kelp fields, due to the unknown impacts of changing ocean chemistry, the Department of State Lands put in place a moratorium banning such leases.
- Kelp and seaweeds can be grown in on-land operations (regulated by the Department of Agriculture) or can be harvested recreationally off beaches subject to rules (regulated by Oregon State Parks).

Tribal

N/A

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

N/A

Local municipality website for algae aquaculture leasing/permitting:

N/A

Local municipality application for algae aquaculture leasing/permitting:

N/A

State Government

State lead agency for algae aquaculture leasing/permitting:

Department of State Lands handles leasing of kelp.

State agency contact(s) for algae aquaculture leasing/permitting:

Andrea Celentano, DSL Policy Analyst, andrea.celentano@dsl.state.or.us, 503-986-5217

State agency website(s) for aquaculture leasing/permitting:

[Department of State Lands](#)

State algae aquaculture leasing/permitting law(s):

[ORS 274.885: Lease of Kelp Fields](#)

State algae aquaculture leasing/permitting regulation(s):

Ban on seaweed aquaculture from [OAR 141-125-0110 \(14\)](#)

State application for algae leasing/permitting:

N/A

U.S. Army Corps of Engineers

Corps District(s):

Portland

Corps contact(s) for algae aquaculture permitting:

503-808-4373

Corps website for algae aquaculture permitting:

[Portland Nationwide Permits](#)

Corps permit for algae aquaculture:

[NWP 55](#)

[No NWP 55 regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

- PCN. Can use [form 6082](#)
- If applying for activities with Department of State Lands, [see JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [JPA with Department of State Lands](#) (DSL)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes (but culture not allowed by OR at this time).

Are there interagency meetings (state/federal)?

Yes

Interagency Meeting Frequency:

3rd Wednesday of each month.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

N/A

Process flowchart available?

N/A

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

N/A

Is a pre-application meeting required, encouraged, not specified?

N/A

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Algae lease/permit application fee?

N/A

Is applicant fee returned if denied?

N/A

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

N/A

Summary of advertisement requirement of lease application by agency and/or applicant?

N/A

Who pays for advertisement?

N/A

Business/Operations Plan

Is a management or operations plan required with application?

N/A

Is a business plan required with application?

N/A

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

N/A

Lease Term and Conditions

Maximum term limit for lease?

N/A

Are renewals available?

N/A

Any renewal fee?

N/A

Is there an active use requirement? Any criteria to assess?

N/A

Is there a production report requirement?

N/A

Frequency for providing production report?

N/A

Can an algae aquaculture lease be transferred?

N/A

Is there a bid process for leases?

N/A

Any acreage limits?

N/A

Limits per site

N/A

Limits per person

N/A

Limits on number of lease sites a person can hold

N/A

Rental and Use Fees

Annual rental fee?

\$14/acre approved waters and \$5/acre for prohibited waters.

Any algae aquaculture harvest surcharge? If so, what is it?

N/A

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

N/A

Land surveyor/hydrographic survey

N/A

Lease markering responsibility

N/A

Biological assessment fee

N/A

Property tax

N/A

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

- [Oregon Department of Agriculture](#)
- [Rules for recreational seaweed harvest](#)
- [Guide for recreational seaweed harvest](#)
- [Oregon Aquaculture Association](#)

Definitions

State definition of aquaculture:

No information

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

N/A

Protected Resources and Critical Habitat Designations

N/A

Essential Fish Habitat (EFH)

N/A

Navigation

N/A

Historic resources

N/A

Migratory Fish

N/A

Shellfish density threshold

N/A

Submerged aquatic vegetation (SAV)

N/A.

Other natural resource protection measures?

N/A

Riparian setback

N/A

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

N/A

Any riparian owner notice requirement for lease applications?

N/A

Is applicant required to provide list of riparian owners to permitting agency?

N/A

Is any consent of riparian owner required? If so, under what condition?

N/A

Coastal Zone Management (CZM) Consistency Determination

N/A

Section 401 Water Quality Certification (WQC)

N/A

Section 402/403 Pollution Control

N/A

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

N/A

Any algae aquaculture lease/permit holder training/exam requirement?

N/A

Are algae aquaculture leases/permits restricted to residents only?

N/A

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

N/A

Number of complete algae applications currently in review?

N/A

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

N/A

Total acreage of algae aquaculture leases. Separate by species if available.

N/A

Total # of lease holders/individuals employed (if available)?

N/A

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

N/A

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

N/A

Multitrophic Systems

Attachment to shellfish culture

N/A

Rhode Island

Summary of the Status of Algae Culture

- Conducted under the same rules and system as shellfish. The major difference is that leases with kelp/algae may have conditions that only allow seasonal growing (roughly November to April) because these farms are often sited in areas with conflicts in the summer months (and are often unproductive during that time anyway). Annual fees and costs remain the same even if the farm is only permitted to work of the year.
- Commercial viability permit is an administrative permit for the first 1.5 years and then a CRMC permit for the next 1.5 year, and limited to <1,000 sq ft. This permit is used as a prospecting permit.

Tribal

Recommended to consult with tribes (see GP) if believed to be a potential reason for concern.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Harbormaster and other town officials present at preliminary determination meeting (usually hosted at nearby town). Notified of application during later 30-day public comment period. Usually it is the harbor commission but towns are free to designate which bodies or officials are involved and therefore it varies town to town.

Local municipality website for algae aquaculture leasing/permitting:

No information.

Local municipality application for algae aquaculture leasing/permitting:

No information.

State Government

State lead agency for algae aquaculture leasing/permitting:

Coastal Resources Management Council (CRMC) (a regulatory state agency) is lead in consultation with Department of Environmental Management (DEM).

State agency contact(s) for algae aquaculture leasing/permitting:

Ben Goetsch (CRMC) Aquaculture Coordinator, bgoetsch@crmc.ri.gov, 401-783-3370

State agency website(s) for aquaculture leasing/permitting:

[CRMC: Aquaculture](#)

State algae aquaculture leasing/permitting law(s):

[CRMC Guide to Aquaculture Applications, pg. 25](#)

State algae aquaculture leasing/permitting regulation(s):

- [CRMC Guide to Aquaculture Applications, pg. 32](#)
- [250-RICR-40-00-1: Aquaculture of Marine Species in Rhode Island Waters](#)

State application for algae leasing/permitting:

[CRMC Aquaculture page](#)

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for algae aquaculture permitting:

Leslie Martin, leslie.martin@usace.army.mil, 978-318-8688

Corps website for algae aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for algae aquaculture:

[Rhode Island General Permit](#) Activity 16:

NWP 55 suspended in New England (4/13/2021).

Corps permit expiration:

3-Mar-22

Corps application for algae aquaculture permitting:

[CRMC Application](#)

Is there a State/Federal Joint Permit Application (JPA)?

Not called a JPA but CMRC form sent to Corps

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

SV Eligible. Projects done for RIDEM project OR temporary research structures under CRMC supervision OR suspended cages within footprint of an authorized fixed/floating structure with depth/clearance reqs OR upweller floats <160 sf with depth/clearance reqs. No SVNF needed beyond state application.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

PCN required. Includes vertical-drop longlines for seaweed.

Is a Pre-Construction Notification (PCN) required?

No; Core and CMRC coordinate PCN-level reviews for Category 2 projects based on the state application.

Are there interagency meetings (state/federal)?

Yes

Interagency Meeting Frequency:

Reviews coordinated mostly via email with CRMC and applicant. No exact dates.

Applicant Guide/Tools**Is there an algae aquaculture applicant guide book/information?**

Very thorough [CRMC guide](#) (permit types, application forms and instructions, and laws)

Process flowchart available?

- [CRMC Permitting Process](#)
- Updated flow chart currently in progress

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- See link to interactive lease map [on CRMC aquaculture website](#)
- New siting tool (ShellFAST R) in progress (comparable to Massachusetts set-up)

Is a pre-application meeting required, encouraged, not specified?

Preliminary Determination is required, it is a separate application to the full permit application.

Application Fees

Any pre-determination meeting fee for applicants?

\$25

Algae lease/permit application fee?

- Sliding scale based on project costs with minimum of \$50.
- \$25 for experimental or commercial viability application.

Is applicant fee returned if denied?

No

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Mandatory open pre-determination meeting.

Summary of advertisement requirement of lease application by agency and/or applicant?

30 day public comment period. CRMC holds local hearing (in addition to standard Council hearing) if any objection.

Who pays for advertisement?

No information.

Business/Operations Plan

Is a management or operations plan required with application?

Operations plan.

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Best 6 months, worst 13-14 months, average 8-9 months (a year or more common in 2021 due to COVID-19 backlog). 2-3 months for commercial viability permit.

Lease Term and Conditions

Maximum term limit for lease?

15 years (3 years for experimental, research, and viability permits).

Are renewals available?

At 10 year increments (3 years for experimental, research permits; viability permit must be replaced with full permit).

Any renewal fee?

Annual rental fee applies.

Is there an active use requirement? Any criteria to assess?

Yes, if goes for a year without being actively "farmed," lease may be revoked.

Is there a production report requirement?

Yes

Frequency for providing production report?

Annual (due in January).

Can an algae aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No

Any acreage limits?

Yes

Limits per site

- 3 acres in Narragansett Bay north of 41°35' only

- 1,000 sq. ft. for experimental/viability/research

Limits per person

No information

Limits on number of lease sites a person can hold

- Max. 1 site for commercial viability permits
- Max. 3 sites for experimental and education/research permits

Rental and Use Fees

Annual rental fee?

Yes, \$75 for <0.5 acres, \$150 for 0.5-1 acre, and \$100 for each additional acre

Any algae aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

\$200 DEM Aquaculture License

Land surveyor/hydrographic survey

N/A

Lease markering responsibility

Applicant

Biological assessment fee

N/A

Property tax

No

Present shellfish value assessment on proposed lease site?

No

Additional Information Sources

Other websites of interest:

- [National Seaweed Hub](#)

Definitions

State definition of aquaculture:

Cultivation, rearing, or propagation of aquatic plants or animals under either natural or artificial condition.

Any alternative names of a 'lease'?

State assent.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

May have conditions that only allow seasonal growing (roughly November to April) because these farms are often sited in areas with conflicts in the summer months (and are often unproductive during that time anyway). Annual fees and costs remain the same even if the farm is only permitted to work of the year.

Protected Resources and Critical Habitat Designations

Standard; cannot threaten critical habitat, and PCN required if any involvement.

Essential Fish Habitat (EFH)

Standard

Navigation

No unreasonable interference with navigation. Any structure or work that extends closer to the horizontal limits of a FNP than a distance 3x the authorized depth shall be subject to removal at the owner's expense prior to any Corps dredging or performance of any hydrographic surveys.

Historic resources

All proposals are forwarded to the Rhode Island Historical Preservation & Heritage Commission.

Migratory Fish

DEM reviews for impacts and submits recommendation to CRMC.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

- GP does not cover impacts to SAV.
- Per state regulations must avoid impacts to SAV habitat.
650-RICR-20-00-1.3.1(K)(4)(g): "Proposed aquaculture leases may not be sited where eelgrass (*Zostera marina*) or widgeon grass (*Ruppia maritima*) exists," however if SAV moves into a lease that's ok.

Other natural resource protection measures?

DEM will review for impacts.

Riparian setback

No information.

Social capacity

Established a 5% 'social capacity' for coastal ponds in 2009.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Neither CRMC nor applicant required to notify. CRMC does notify towns, who may inform residents/landowners.

Is applicant required to provide list of riparian owners to permitting agency?

Must provide list of neighboring owners as part of application.

Is any consent of riparian owner required? If so, under what condition?

No

Coastal Zone Management (CZM) Consistency Determination

CRMC determines consistency.

Section 401 Water Quality Certification (WQC)

[Activity covered by state GP approved through Feb. 23, 2022](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

If discharge, need RIPDES permit. [RIPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- [\\$200 DEM aquaculture license](#) (for selling product)
- [DEM Special Permit for Aquaculture](#), free, but must be renewed annually

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

Kelp as a component of shellfish farms is common. Can modify shellfish assent with a 30-day public notice process to add algae culture; seasonal restrictions may still apply.

South Carolina

Summary of the Status of Algae Culture

Possible but complex. Seaweed/algae culture hasn't been truly permitted in South Carolina; seaweed applications tend to die in NEPA review due to vertical lines presenting a risk of entanglement for local wildlife.

If a seaweed permit were to be permissible, it would be native species only, and application would be done via the same Joint Application used for shellfish aquaculture (applicants would just tailor their application to seaweed as best as possible). While some mariculture-specific information (or info from the shellfish process) has been provided, a lack of clear regulations on generic mariculture leasing leaves most details open-ended.

If permit meets criteria for individual permit from state, will be a \$1,000 fee due to involvement of other agencies.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for algae aquaculture leasing/permitting:

No information.

Local municipality application for algae aquaculture leasing/permitting:

No information.

State Government

State lead agency for algae aquaculture leasing/permitting:

- Department of Natural Resources
- Department of Health and Environmental Control's Office of Coastal Resource Management (DHEC-OCRM) works on application review

State agency contact(s) for algae aquaculture leasing/permitting:

Ben Dyar, dvarb@dnr.sc.gov (takes part in JPA process)

State agency website(s) for aquaculture leasing/permitting:

[SC DNR Mariculture](#)

State algae aquaculture leasing/permitting law(s):

Specific seaweed laws do not exist, but [Title 50, Article 21](#) provides a generic Mariculture statute.

State algae aquaculture leasing/permitting regulation(s):

[DHEC Chapter 30-12\(O\)](#)

State application for algae leasing/permitting:

[Joint Mariculture Application](#)

U.S. Army Corps of Engineers

Corps District(s):

Charleston

Corps contact(s) for algae aquaculture permitting:

843-329-8044

Corps website for algae aquaculture permitting:

[Charleston Permitting Process](#)

Corps permit for algae aquaculture:

NWP 55 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

[JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, see [JPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes, PCN at minimum (but fulfilled by JPA).

Are there interagency meetings (state/federal)?

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

No

Process flowchart available?

[Flowchart](#) for the JPA process as it would normally apply to shellfish (general structure should apply given same application).

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Siting guidance](#)
- [Siting tool](#)

Is a pre-application meeting required, encouraged, not specified?

Strongly, strongly encouraged (especially given unusual nature of application). Later is a joint meeting between SCDNR, OCRM, and USACE. Corps has pre-application meeting request form.

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Algae lease/permit application fee?

- \$25 for JPA
- \$1000 additional IP fee for floating gear due to involvement of other agencies

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information

Summary of advertisement requirement of lease application by agency and/or applicant?

Applicant required to place ad in newspaper once a week for three consecutive weeks (shellfish mariculture standard requirement).

Who pays for advertisement?

Applicant (shellfish mariculture standard requirement).

Business/Operations Plan

Is a management or operations plan required with application?

Yes.

Is a business plan required with application?

Basic information included with operations plan for JPA.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

No information.

Are renewals available?

No information.

Any renewal fee?

No information.

Is there an active use requirement? Any criteria to assess?

Issued with the intent to be used for a commercial purpose. If during the review at the end of the permit cycle there is no commercial use the permit will likely be recommended to be non-renewed.

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can an algae aquaculture lease be transferred?

No information

Is there a bid process for leases?

No

Any acreage limits?

Private, non-commercial operations limited to no more than 200 square ft of growing surface (must own adjacent highland + be riparian owner).

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

No information

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

\$1,000 individual permit fee through DHEC may be needed if gear used for mariculture.

Land surveyor/hydrographic survey

No information

Lease markering responsibility

Applicant (not required, must be approved) (shellfish mariculture standard requirement).

Biological assessment fee

Completed by DNR (shellfish mariculture standard requirement).

Property tax

No information.

Present algae value assessment on proposed lease site?

No information.

Additional Information Sources**Other websites of interest:**

- [Shellfish Mariculture BMPs](#) (while shellfish-specific, all mariculture is expected to comply with BMPs of some kind; this may provide a reference for the sort of practices involved)
- [National Seaweed Hub](#)

Definitions**State definition of aquaculture:**

Mariculture means the confined cultivation of aquatic species in the marine environment, including the spawning and rearing of juveniles and adults, either alone or in combination with other species, and the trafficking in said species.

Any alternative names of a 'lease'?

No information

Special Natural Resource and Social Permit Conditions**Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?**

Must have storm damage plan and must adopt BMPs (updated as industry standards/tech change).

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard

Migratory Fish

No information

Shellfish density threshold

No information

Submerged aquatic vegetation (SAV)

Standard

Other natural resource protection measures?

No information

Riparian setback

No mariculture within 50 ft of an existing dock/cannot block access to such a dock without permission (if a dock is later permitted and built, mariculture must be moved to comply).

Social capacity

Most consider user conflicts, and most design all structures/pens to be as visually unobtrusive as possible while still complying with USCG.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information

Any riparian owner notice requirement for lease applications?

Must provide notice to adjacent property owners and attempt to obtain letters of no objection (submitted with JPA).

Is applicant required to provide list of riparian owners to permitting agency?

Yes, on JPA.

Is any consent of riparian owner required? If so, under what condition?

See above

Coastal Zone Management (CZM) Consistency Determination

CZM concurrence denied. Seek individually from State.

Section 401 Water Quality Certification (WQC)

No information

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[SC NPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- [Possible commercial saltwater license](#) (\$25.00 for SC residents; \$300 nonresident)
- For mariculture operations involving gear/critical areas, DHEC may require an [individual permit](#) (up to \$1,000)

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

Sometimes placed within same leases as oysters.

Texas

Summary of the Status of Algae Culture

- While Texas has some regulations in place that address offshore aquaculture of miscellaneous species, no contact was able to be made with a Texas regulatory contact, and information is not provided.
 - See the [2020-2021 Texas Commercial Fishing Regulations Summary](#) for some information on offshore aquaculture (p. 48).
-

Virginia

Summary of the Status of Algae Culture

- There are no explicit regulatory prohibitions against seaweed or finfish culture, but there are also no regulatory structures whatsoever. It is advised that those interested in starting seafood or finfish operations attempt to begin with a scientific collection permit, which are reviewed by the Commissioner on a case-by-case basis. These permits primarily are oriented toward collecting species for scientific use, so speak with regulatory agents to determine whether you can utilize for an exploratory aquaculture project.
- Note that explicit rules against selling seafood without having permitting do exist. Virginia has some rules around aquaculture of specific species (such as striped bass and cobia), but these are oriented toward enclosed, land-based operations.

Tribal

None other than VMRC.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

None other than VMRC.

Local municipality website for algae aquaculture leasing/permitting:

No

Local municipality application for algae aquaculture leasing/permitting:

No

State Government

State lead agency for algae aquaculture leasing/permitting:

Virginia Marine Resources Commission

State agency contact(s) for algae aquaculture leasing/permitting:

- Jennifer Farmer, jennifer.farmer@mrc.virginia.gov (Issues Scientific Collection Permit)
- Alicia Nelson, alicia.nelson@mrc.virginia.gov

State agency website(s) for aquaculture leasing/permitting:

[VMRC Experimental Fisheries Permits](#)

State algae aquaculture leasing/permitting law(s):

[Chapter 12. Submerged Lands](#)

State algae aquaculture leasing/permitting regulation(s):

No information

State application for algae leasing/permitting:

Request Experimental form

U.S. Army Corps of Engineers

Corps District(s):

Norfolk

Corps contact(s) for algae aquaculture permitting:

- Regulator of the day: 757-201-7652
- Peter Kube, peter.r.kube@usace.army.mil, 757-201-7504
- Tucker Smith, tucker.smith@usace.army.mil, 757-201-7653

Corps website for algae aquaculture permitting:

[Norfolk District NWP Conditions](#)

Corps permit for algae aquaculture:

NWP 55 [regional conditions](#)

Corps permit expiration:

NWP: 3/14/2026; RGP 19: 9/5/2023

Corps application for algae aquaculture permitting:

[Tidewater JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [Tidewater JPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes, PCN at minimum, (required by regional permit 19), but can use the JPA

Are there interagency meetings (state/federal)?

No

Interagency Meeting Frequency:

n/a

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

[Experimental Permits Description](#)

[Shellfish Aquaculture](#) (extent of VA's marine aquaculture program)

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Maps and GIS Data](#)

Is a pre-application meeting required, encouraged, not specified?

May be necessary for discussing unorthodox aquaculture

Application Fees

Any pre-determination meeting fee for applicants?

No

Algae lease/permit application fee?

No information

Is applicant fee returned if denied?

No information

Corps Individual Permit fee

No information

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information

Summary of advertisement requirement of lease application by agency and/or applicant?

No information

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

No information

Is a business plan required with application?

No information

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

No information

Are renewals available?

No information

Any renewal fee?

No information

Is there an active use requirement? Any criteria to assess?

No information

Is there a production report requirement?

No information

Frequency for providing production report?

No information

Can a algae aquaculture lease be transferred?

No information

Is there a bid process for leases?

No information

Any acreage limits?

No information

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

No information

Any algae aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

No information

Land surveyor/hydrographic survey

No information

Lease markering responsibility

No information

Biological assessment fee

No information

Property tax

No information

Present shellfish value assessment on proposed lease site?

No information

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

The propagation, rearing, enhancement, and harvest of aquatic organisms in controlled or selected environments, conducted in marine, estuarine, brackish, or fresh water.

Any alternative names of a 'lease'?

No information

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

No information

Protected Resources and Critical Habitat Designations

No information

Essential Fish Habitat (EFH)

No information

Navigation

No information

Historic resources

No information

Migratory Fish

No information

Shellfish density threshold

No information

Submerged aquatic vegetation (SAV)

No information

Other natural resource protection measures?

No information

Riparian setback

No information

Social capacity

No information

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information

Any riparian owner notice requirement for lease applications?

No information

Is applicant required to provide list of riparian owners to permitting agency?

No information

Is any consent of riparian owner required? If so, under what condition?

No information

Coastal Zone Management (CZM) Consistency Determination

As a condition of the VADEQ's concurrence with the CZMA consistency determination, applicants are required, for proposed activities located within Virginia's designated coastal zone, to access the Virginia Department of Wildlife Resources' (DWR) [Virginia Fish and Wildlife Information Service](#) (VAFWIS) to determine if a state-listed species or designated resource is known within 2 miles of the proposed activity being permitted. Should a state-listed species and/or designated resource be identified within 2 miles of the proposed activity, the applicant must coordinate with the DWR's Environmental Services Section (ESS) by submitting information on permit applications via email to: essprojects@dwr.virginia.gov. Applicant shall allow at least 30 days for review and comment by the DWR ESS.

Section 401 Water Quality Certification (WQC)

No information

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#).

[VPDES Program](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

No information

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture.

No information

Washington

Summary of the status of algae culture

- Seaweed has been done in a very limited scope thus far; however, it can be permitted using the same structure (JARPA, lease, etc.) as finfish and shellfish. Because it has less of an established history, rules listed below may be more subject to variation or case-by-case treatment.
- Seaweed can be cultured on shellfish leases but requires a full proposal to do so (siting requirements have already been done, however).

Tribal

Have right to review and comment on permits.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Over 40 Shoreline Master Plans exist, dependent on county.

May need a Shoreline Substantial Development, Conditional Use Permit, or Variance Permit (depending on jurisdiction), or some combination of these. Recommended to meet with locals first.

Local municipality website for algae aquaculture leasing/permitting:

[Shoreline Master Plan Guidebook for Aquaculture](#)

Local municipality application for algae aquaculture leasing/permitting:

[JARPA](#)

State Government

State lead agency for algae aquaculture leasing/permitting:

- Department of Natural Resources (DNR) Aquatic Resources Program issues aquatic use authorizations (leases) for State-Owned Aquatic Lands (not required for privately owned tidelands). DNR can verify land ownership.
- Department of Ecology reviews for WQC and CZMA consistency.
- Department of Health issues permits for shellfish harvest and sales.
- Department of Agriculture/Department of Health monitor food safety, disease.

State agency contact(s) for algae aquaculture leasing/permitting:

- DNR (Main contact), Sean Carlson, District Land Manager, sean.carlson@dnr.wa.gov, 360-301-0422
- WA Department of Ecology, Casey Dennehy, cden461@ecy.wa.gov, 206-594-0066
- WA DNR, Kristin Swenddal, kristin.swenddal@dnr.wa.gov, 360-902-1124

State agency website(s) for aquaculture leasing/permitting:

- [Department of Ecology, Aquaculture](#)
- [Department of Natural Resources, Aquaculture](#)

State algae aquaculture leasing/permitting law(s):

- [Chapter 79.135 RCW](#) (Aquatic Lands--Oysters, Geoducks, Shellfish, Other Aquacultural Uses, and Marine Aquatic Plants)
- [Chapter 79.105 RCW](#) (Aquatic Lands--General)
- [Aquaculture Leasing Statutory and Regulatory Framework](#)

State algae aquaculture leasing/permitting regulation(s):

- [Chapter 220-370 WAC](#): Aquaculture
- [Chapter 332-30 WAC](#): Aquatic Land Management
- [Aquaculture Leasing Statutory and Regulatory Framework](#)

State application for algae leasing/permitting:

- [JARPA](#)
- [One-Stop JARPA Resource Center](#)
- DNR requires Attachment E to be submitted with JARPA

U.S. Army Corps of Engineers

Corps District(s):

Seattle

Corps contact(s) for algae aquaculture permitting:

- Andy Dangler, andrew.c.dangler@usace.army.mil, 518-487-0215
- Matt Bennett, 206-764-3428
- Pam Sanguinetti, 206-764-6904

Corps website for algae aquaculture permitting:

[Seattle Regulatory Division](#)

Corps permit for algae aquaculture:

NWP 55 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for algae aquaculture permitting:

[JARPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes. [JARPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 55. Can use JARPA for PCN.

Are there interagency meetings (state/federal)?

No information

Interagency Meeting Frequency:

No information

Applicant Guide/Tools

Is there an algae aquaculture applicant guide book/information?

[JARPA instructions](#)

Process flowchart available?

Yes, [process flowchart](#) but from 2014; meant for shellfish, but general structure does still apply (can also consult with draft of net pen guidelines).

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

DNR has info on State Owned Aquatic Lands (SOAL) [and appropriate contacts](#).

Is a pre-application meeting required, encouraged, not specified?

Encouraged by Corps, DNR. Pre-filing meeting required by Ecology for WQC review. [Pre-Filing Meeting Request Form](#)

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Algae lease/permit application fee?

Yes - DNR requires a non-refundable \$25 check to be submitted with the JARPA and Attachment E.

Is applicant fee returned if denied?

Non-refundable.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

DNR issues a public notice after the application is processed. No public meetings though.

Summary of advertisement requirement of lease application by agency and/or applicant?

Notice and comment period of at least 30 days for all shoreline permits. SEQA may result in additional public comment requirements for state agencies.

Who pays for advertisement?

No information

Business/Operations Plan

Is a management or operations plan required with application?

Yes

Is a business plan required with application?

No

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information

Lease Term and Conditions

Maximum term limit for lease?

No information

Are renewals available?

Yes

Any renewal fee?

Same \$25 application fee.

Is there an active use requirement? Any criteria to assess?

Agency discretion

Is there a production report requirement?

Yes.

Frequency for providing production report?

Quarterly

Can a algae aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No information

Any acreage limits?

Subject to agency discretion

Limits per site

No information

Limits per person

No information

Limits on number of lease sites a person can hold

No information

Rental and Use Fees

Annual rental fee?

Rents subject to agency discretion and negotiation.

Any algae aquaculture harvest surcharge? If so, what is it?

An additional rent (i.e., surcharge or royalty fee) may be established through aforementioned rent negotiations.

Other Fees

Other required fees/costs associated with obtaining an algae aquaculture lease/permit?

Cost for registered land surveyor (see below)

Land surveyor/hydrographic survey

Applicant, by registered land surveyor

Lease markering responsibility

Applicant

Biological assessment fee

Varies (no fee from DNR)

Property tax

No, but leasehold excise tax may be included with annual rent.

Present shellfish value assessment on proposed lease site?

Applicants pay the cost (if any) of DFW conducting the evaluation.

Additional Information Sources

Other websites of interest:

[National Seaweed Hub](#)

Definitions

State definition of aquaculture:

Aquaculture WAC 173-26-020(6) means the culture or farming of fish, shellfish, or other aquatic plants and animals.

Any alternative names of a 'lease'?

Aquatic use authorization.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 55 conditions)?

No information

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

Not specified but DNR has DFW conduct site evaluation for impact to wild shellfish populations.

Submerged aquatic vegetation (SAV)

May not adversely impact eelgrass/macroalgae.

Other natural resource protection measures?

Forage fish spawning time period restrictions; limit impact to bird and marine mammal habitats.

Note [WAC 220-370-220](#) lays out guidelines for disease control in marine plants.

Riparian setback

No information.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Must notify abutting upland property owners when proposing to lease tidelands to someone other than them.

Is applicant required to provide list of riparian owners to permitting agency?

Yes, JARPA requires upland owners to be listed.

Is any consent of riparian owner required? If so, under what condition?

Per WAC 332-30-122(a)(iii), when not adverse to the public's ownership, the abutting owner's water access needs may be reasonably accommodated.

Coastal Zone Management (CZM) Consistency Determination

[Individual CZM determination needed. CZM federal consistency form.](#)

Section 401 Water Quality Certification (WQC)

[Individual WQCs will be required as described in supplemental decision document for permit NWP 55.](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Ecology NPDES Certifications](#)

Miscellaneous Questions

Any other license, permit and/or registration required for algae aquaculture and other related activities (e.g. algae import/nursery permits)? What are fees?

- [Aquatic farm registration](#) (\$105 annually) with WA DFW
- Import Permits, Transfer Permits (Kelp import permit is not transferrable)
- USCG PATON

Any algae aquaculture lease/permit holder training/exam requirement?

No information

Are algae aquaculture leases/permits restricted to residents only?

No information

Annual Permit/Lease Application Activity (2020)

Average # of algae lease applications/year (last 3-5 years)?

No information

Number of complete algae applications currently in review?

No information

Total Number of Leases (2020 unless otherwise noted)

Total # of algae leases.

No information

Total acreage of algae aquaculture leases. Separate by species if available.

No information

Total # of lease holders/individuals employed (if available)?

No information

Harvest and Value (2020 unless otherwise noted)

Harvest and value of algae aquaculture.

No information

Any farm gate value estimates of algae aquaculture harvest? Separate by species if available.

No information

Multitrophic Systems

Attachment to shellfish culture

Farming kelp on an existing shellfish lease still requires a full proposal, but likely to be an easier process because siting has been done already (also more economical in terms of production).
